

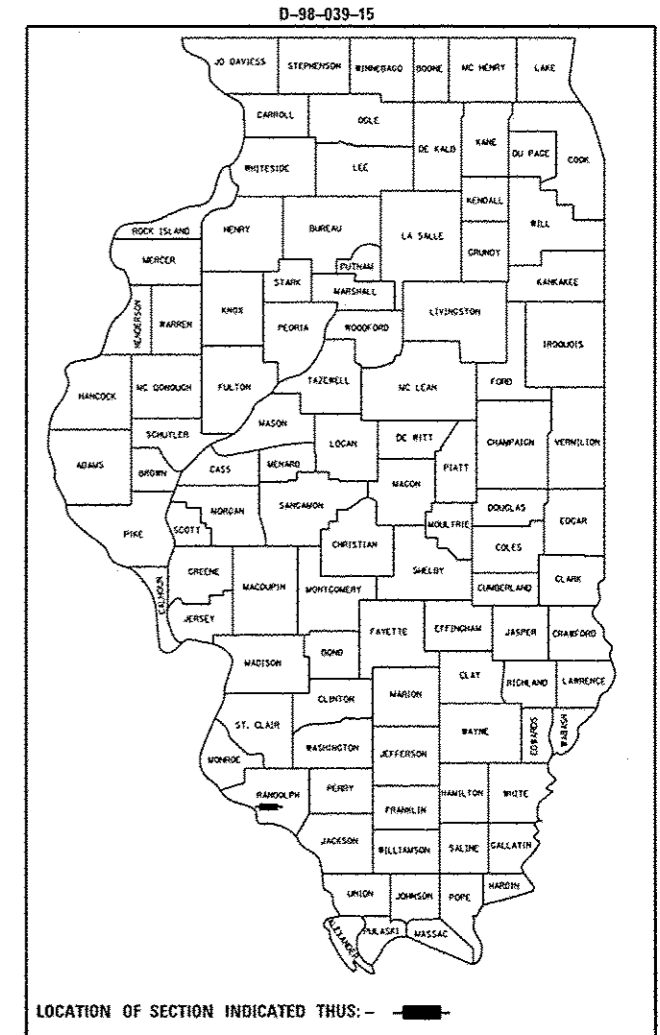
PLANS FOR PROPOSED HIGHWAY IMPROVEMENT

FAS ROUTE 858 (ROOTS ROAD)
SECTION 12-B-1
PROJECT ACRS - 0858 (101)
RANDOLPH COUNTY

DECK REPLACEMENT

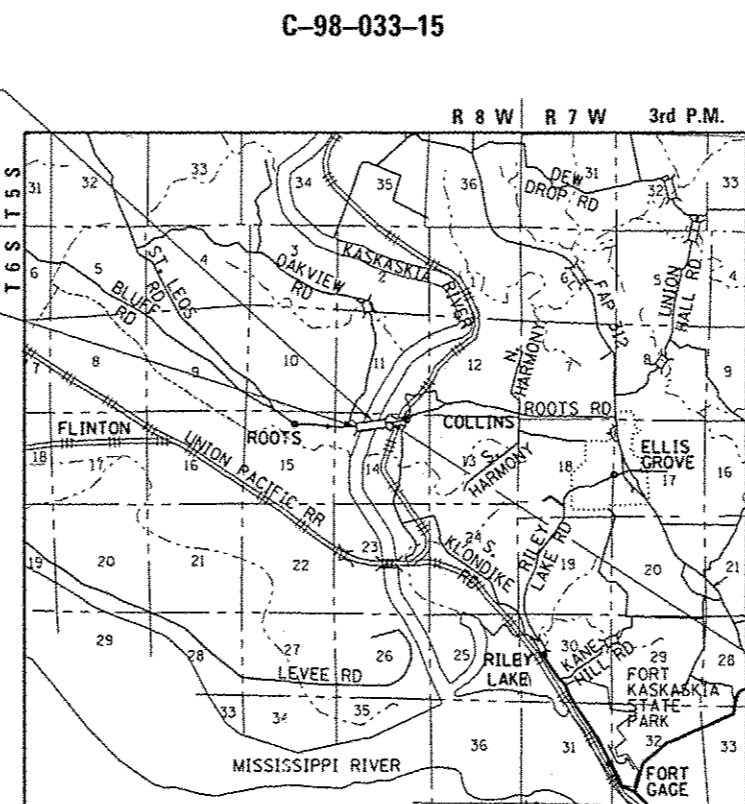
FOR INDEX OF SHEETS, SEE SHEET NO. 2

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 76H81	

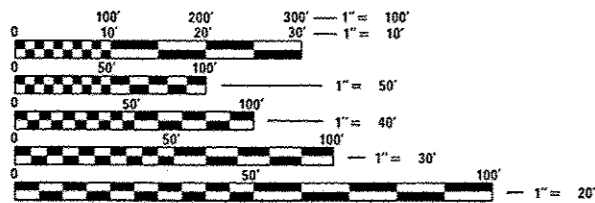


SECTION 12-B-1 INCLUDES THE REMOVAL AND REPLACEMENT OF THE EXISTING CONCRETE DECK ON THE EXISTING STEEL BEAMS AND SUBSTRUCTURE UNITS FOR THE STRUCTURE CARRYING ROOTS ROAD OVER THE KASKASKIA RIVER. THIS WORK ALSO INCLUDES RECONSTRUCTION OF THE BRIDGE APPROACH SPANS ON VAULTED ABUTMENTS. THIS WORK ALSO INCLUDES RECONSTRUCTION OF THE BRIDGE APPROACH SLABS.
STA. 631+60.00
SN 079-0019

PROJECT BEGINS
STA 617+03.34



PROJECT ENDS
STA. 639+53.14



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: TIM PADGETT (618) 346-3325
SQUAD LEADER: PHIL COPPERNOLL (618) 346-3480

CONTRACT NO. 76H81

ADT: 475 (2012) COLLECTOR
ADT: 975 (2023)
13.3% TRUCKS

LOCATION MAP
ELIIS GROVE TOWNSHIP
GRAPHIC SCALE IN MILES

GROSS PROJECT LENGTH = 2249.80 FEET = 0.426 MILES
LATITUDE 38°01'0.13"
LONGITUDE 89°57'34.11"
SN 079-0019



Brian R. Mueller 02-27-2015
ILLINOIS PROFESSIONAL ENGINEER NO. 062-052018
EXP. 11-30-2015

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Feb 27 20 15

Jeff Z. Keen
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER

March 20 15
John D. Baranzelli, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

March 20 15
Omer Esman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

LOCHMUELLER GROUP
1928 SrA BRADLEY R. SMITH DRIVE
TROY, ILLINOIS 62294
PHONE (618) 667-1400

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED 20% STATE BRIDGE SN 079-0019 0014	
25000200	SEEDING, CLASS 2	ACRE	0.5	0.5	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45	45	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45	45	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45	45	
25100105	MULCH, METHOD 1	ACRE	0.5	0.5	
28000400	PERIMETER EROSION BARRIER	FOOT	1816	1816	
28000500	INLET AND PIPE PROTECTION	EACH	1	1	
28100107	STONE RIPRAP, CLASS A4	SQ YD	122	122	
28200200	FILTER FABRIC	SQ YD	58	58	
31102100	SUBBASE GRANULAR MATERIAL, TYPE C 4"	SQ YD	36	36	
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	100	100	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	190	190	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	33	33	
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	27	27	

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FILE NAME #	USER NAME # bctay	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN - PDB	REVISED -		858	12-B-1	RANDOLPH	90	3				
	PLOT SCALE = 1/8" = 1' / in.	CHECKED - BRM	REVISED -		SCALE: SHEET NO. 1 OF 6 SHEETS STA. TO STA.				CONTRACT NO. 76H81				
	PLOT DATE = 2/27/2015	DATE - 01-26-15	REVISED -		[ILLINOIS] FED. AID PROJECT								

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED 20% STATE BRIDGE SN 079-0019 0014	
42001300	PROTECTIVE COAT	SQ YD	18	18	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	46	46	
44000100	PAVEMENT REMOVAL	SQ YD	67	67	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	112	112	
44004250	PAVED SHOULDER REMOVAL	SQ YD	39	39	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	7	7	
48203033	HOT-MIX ASPHALT SHOULDERS, 9"	SQ YD	18	18	
48203100	HOT-MIX ASPHALT SHOULDERS	TON	16	16	
50102400	CONCRETE REMOVAL	CU YD	25	25	
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1	1	
50105220	PIPE CULVERT REMOVAL	FOOT	5	5	
50157300	PROTECTIVE SHIELD	SQ YD	2724	2724	
50200100	STRUCTURE EXCAVATION	CU YD	101	101	
50300100	FLOOR DRAINS	EACH	12	12	

14

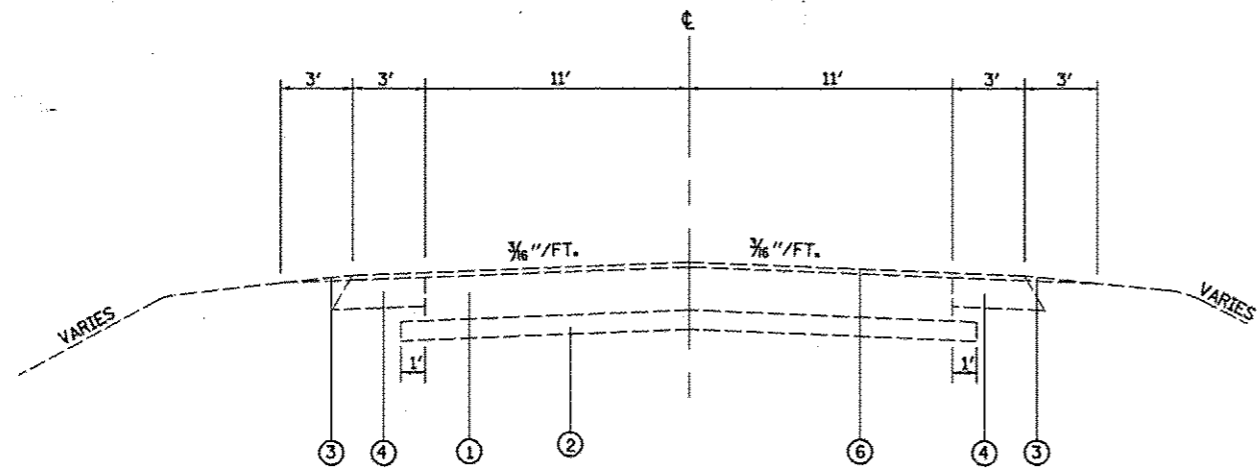
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED 20% STATE BRIDGE SN 079-0019 0014	
50300225	CONCRETE STRUCTURES	CU YD	25.4	25.4	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1743.8	1743.8	
50300260	BRIDGE DECK GROOVING	SQ YD	4659	4659	
50300300	PROTECTIVE COAT	SQ YD	6072	6072	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	48940	48940	
50500505	STUD SHEAR CONNECTORS	EACH	9465	9465	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	391,920	391,920	
50800515	BAR SPLICERS	EACH	52	52	
51500100	NAME PLATES	EACH	1	1	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	76	76	
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	5	5	
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	25	25	
52100520	ANCHOR BOLTS, 1"	EACH	80	80	
52100530	ANCHOR BOLTS, 1 1/4"	EACH	88	88	
14					

FILE NAME =	USER NAME = hahay	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN - PDB	REVISED -		858	12-B-1	RANDOLPH	90	5				
	PLOT SCALE = 1/8" = 1' / in.	CHECKED - BRM	REVISED -		SCALE: SHEET NO. 3 OF 6 SHEETS STA. TO STA.				CONTRACT NO. 76H81				
	PLOT DATE = 2/27/2015	DATE - 01-26-15	REVISED -		[ILLINOIS] FED. AID PROJECT								

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED 20% STATE BRIDGE SN 079-0019 0014	
52100560	ANCHOR BOLTS, 2"	EACH	40	40	
54215550	METAL END SECTIONS 15"	EACH	1	1	
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	226.4	226.4	
60100955	PIPE DRAINS 15"	FOOT	6	6	
60237000	INLETS, TYPE A, TYPE 15 FRAME AND LID	EACH	1	1	
60500060	REMOVING INLETS	EACH	1	1	
60602800	CONCRETE GUTTER, TYPE B	FOOT	45	45	
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	31	31	
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	135	135	
* 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	1312.5	1312.5	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	1605	1605	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	14	14	

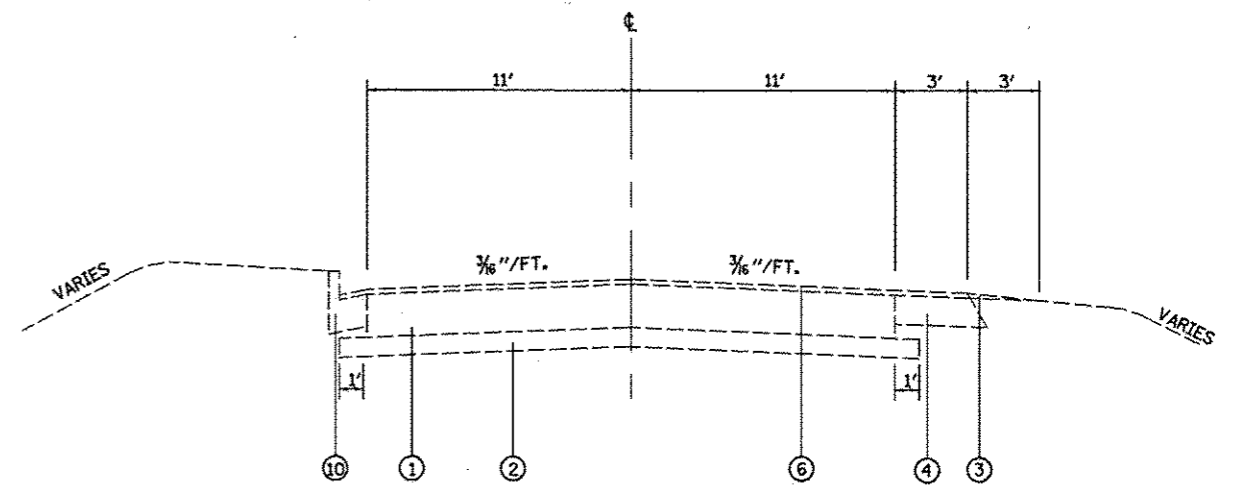
* SPECIALTY ITEM

FILE NAME =	USER NAME = bctay	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#	PLOT SCALE = 40,000' / 1"	DRAWN - PDB	REVISED -					858	12-8-1	RANDOLPH	90	6
	PLOT DATE = 2/27/2015	CHECKED - BRM	REVISED -		SCALE:	SHEET NO. 4 OF 6 SHEETS	STA.	TO STA.	CONTRACT NO. 76H81			
		DATE - 01-26-15	REVISED -		<small>ILLINOIS FED. AID PROJECT</small>							



EXISTING TYPICAL SECTION

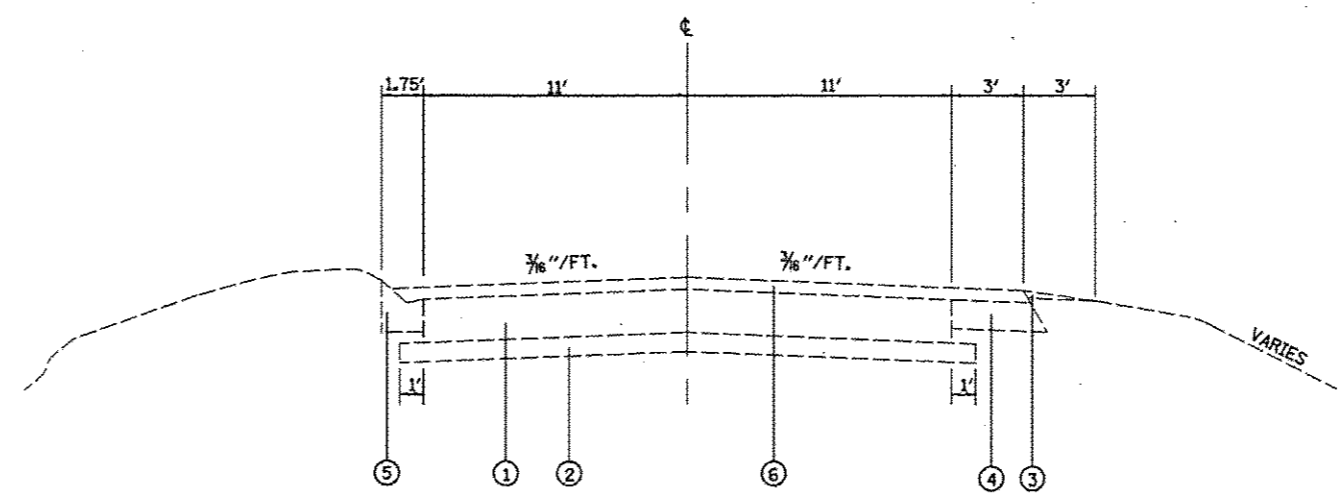
STA. 623+50.00 STA. 624+94.23



EXISTING TYPICAL SECTION

STA. 638+25.97 TO STA. 638+84.70

NOTES:
STA. 624+94.23 TO STA. 638+25.97 (SN 079-0019)



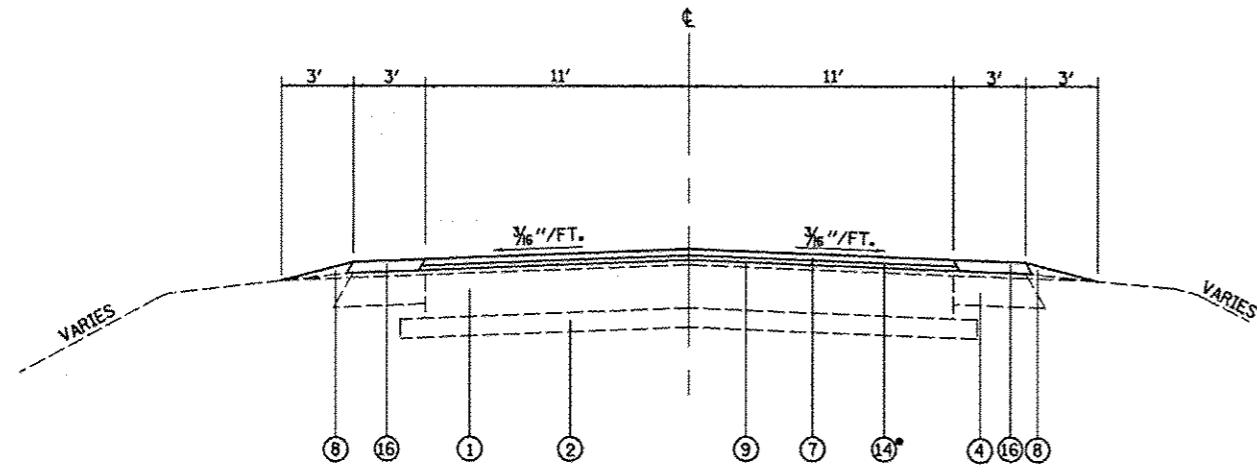
EXISTING TYPICAL SECTION

STA. 638+84.70 TO STA. 639+45.00

LEGEND

- ① EXISTING PCC PAVEMENT 9"
- ② EXISTING SUB-BASE GRANULAR MATERIAL TYPE A, 4"
- ③ EXISTING AGGREGATE WEDGE SHOULDERS
- ④ EXISTING HMA SHOULDER 6"
- ⑤ EXISTING CONCRETE GUTTER TYPE B
- ⑥ EXISTING HMA RESURFACING, 2 1/2" AND VARIES
- ⑦ PROPOSED HMA SURFACE COURSE MIX C, N70, 1 1/2" AND VARIES, SEE MISCELLANEOUS DETAILS
- ⑧ PROPOSED AGGREGATE SHOULDER, TYPE B
- ⑨ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
- ⑩ EXISTING COMBINATION CONCRETE CURB AND GUTTER
- ⑪ PROPOSED HMA SHOULDER, 9"
- ⑫ PROPOSED COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- ⑬ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE C 4"
- ⑭ PROPOSED HOT-MIX BINDER COURSE, IL-19.0, N70, VARIES 2" TO 5 1/2"
- ⑮ PROPOSED CONCRETE GUTTER, TYPE B
- ⑯ PROPOSED HOT-MIX ASPHALT SHOULDERS

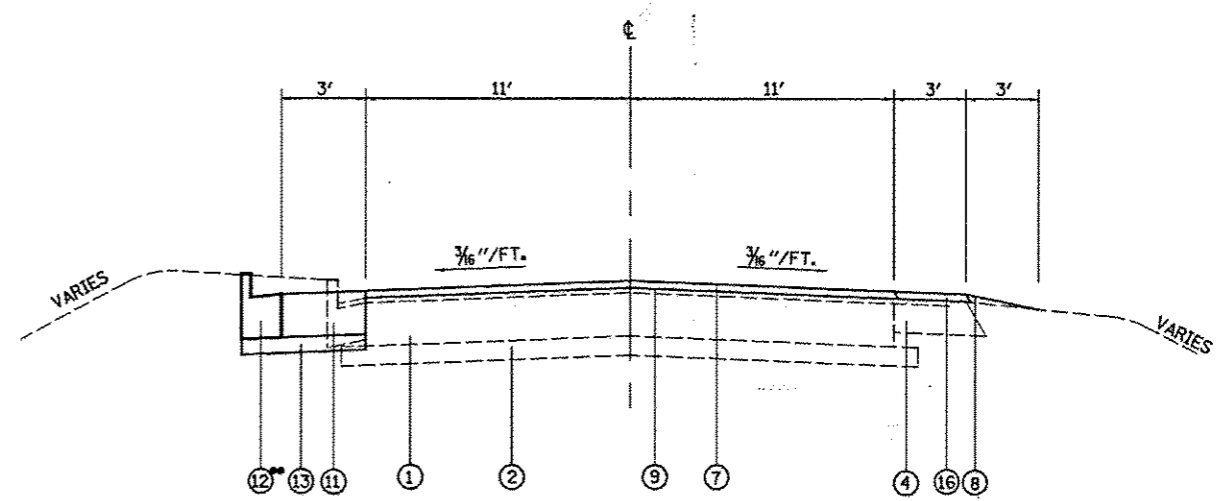
FILE NAME =	USER NAME = bntej	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING TYPICAL SECTIONS		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE#		DRAWN - PDB	REVISED -				858	12-B-1	RANDOLPH	90	9
	PLOT SCALE = 48.0000' / 1" =	CHECKED - BRM	REVISED -		SCALE:	SHEET NO. 1 OF 2 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		
	PLOT DATE = 2/26/2015	DATE - 01-26-15	REVISED -								



PROPOSED TYPICAL SECTION

STA. 623+50.00 STA. 624+64.23

*BEGINS STA 623+82.00, SEE MISCELLANEOUS DETAILS

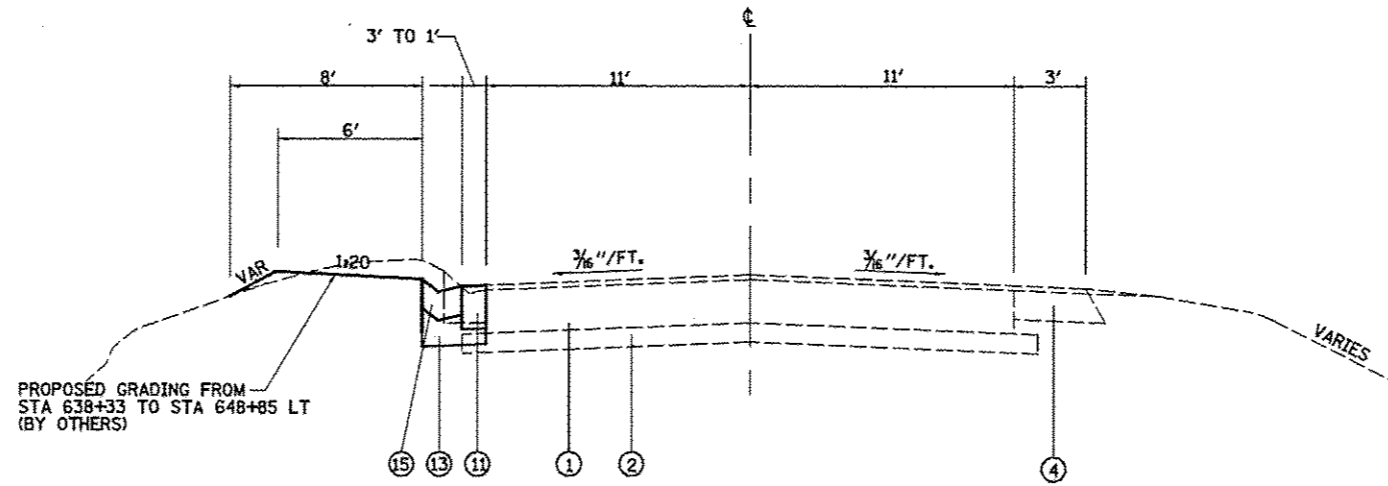


PROPOSED TYPICAL SECTION

STA. 638+55.97 TO STA. 639+00.00

**TRANSITION TO GUTTER, TYPE B FROM STA 638+80.00 TO STA 639+00.00

NOTES:
STA. 624+64.23 TO STA. 638+55.97 (SN 079-0019)



PROPOSED TYPICAL SECTION

STA. 639+00.00 TO STA. 639+45.00

PROPOSED GRADING FROM STA 638+33 TO STA 648+85 LT (BY OTHERS)

LEGEND

- ① EXISTING PCC PAVEMENT 9"
- ② EXISTING SUB-BASE GRANULAR MATERIAL TYPE A, 4"
- ③ EXISTING AGGREGATE WEDGE SHOULDERS
- ④ EXISTING HMA SHOULDER 6"
- ⑤ EXISTING CONCRETE GUTTER TYPE B
- ⑥ EXISTING HMA RESURFACING, 2 1/2" AND VARIES
- ⑦ PROPOSED HMA SURFACE COURSE MIX C, N70, 1 1/2" AND VARIES, SEE MISCELLANEOUS DETAILS
- ⑧ PROPOSED AGGREGATE SHOULDER, TYPE B
- ⑨ PROPOSED BITUMINOUS MATERIALS (PRIME COAT)
- ⑩ EXISTING COMBINATION CONCRETE CURB AND GUTTER
- ⑪ PROPOSED HMA SHOULDER, 9"
- ⑫ PROPOSED COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- ⑬ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE C 4"
- ⑭ PROPOSED HOT-MIX BINDER COURSE, IL-19.0, N70, VARIES 2" TO 5 1/2"
- ⑮ PROPOSED CONCRETE GUTTER, TYPE B
- ⑯ PROPOSED HOT-MIX ASPHALT SHOULDERS

FILE NAME =	USER NAME = betay	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TYPICAL SECTIONS			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILED =	PLOT SCALE = 48,0000' / in	DRAWN - PDB	REVISED -					858	12-B-1	RANDOLPH	90	10
	PLOT DATE = 2/27/2015	CHECKED - BRM	REVISED -		SCALE:	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.	CONTRACT NO. 76HB1			
		DATE - 01-26-15	REVISED -		ILLINOIS FED. AID PROJECT							

SEEDING AND GRADING SCHEDULE

LOCATION	SEEDING CLASS 2	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH METHOD 1	GRADING AND SHAPING FORESLOPES
STATION TO STATION	SIDE	(ACRE)	(POUND)	(POUND)	(POUND)	(SQ YD)
STA 617+03 TO STA 624+72	RT	0.13	11.7	11.7	11.7	642.60
STA 617+67 TO STA 624+88	LT	0.15	13.5	13.5	13.5	692.96
STA 638+70 TO STA 639+45	LT	0.01	0.9	0.9	0.9	41.79
SUBTOTAL		0.29	26.1	26.1	26.1	1377.35
PAY TOTAL		0.50	45	45	45	1378

PAVING SCHEDULE

LOCATION	SUBBASE GRANULAR MATERIAL, TYPE C 4"	BITUMINOUS MATERIALS (PRIME COAT)	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	AGGREGATE SHOULDERS, TYPE B	HOT-MIX ASPHALT SHOULDERS, 9"	HOT-MIX ASPHALT SHOULDERS	CONCRETE GUTTER, TYPE B	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	PROTECTIVE COAT
STATION TO STATION	(SQ YD)	(POUND)	(TON)	(TON)	(SQ YD)	(TON)	(SQ YD)	(TON)	(FOOT)	(FOOT)	(SQ YD)
STA 623+50.00 TO STA 624+64.23		75.76	32.8	21.4	22.6	5.7		14.8			
STA 638+55.97 TO STA 639+45.00	35.5	23.77		5.4	22.6	0.5	17.4	0.9	45.0	30.2	17.3
SUBTOTAL		35.5	99.53	32.8	26.8	45.2	17.4	15.7	45.0	30.2	17.3
PAY TOTAL		36	100	33	27	46	7	16	45	31	18

EROSION CONTROL SCHEDULE

LOCATION	INLET AND PIPE PROTECTION	PERIMETER EROSION BARRIER
STATION TO STATION	SIDE	(FOOT)
STA 617+65 TO STA 618+70	LT	165
STA 617+00 TO STA 624+75	RT	775
STA 618+85 TO STA 624+90	LT	675
STA 638+00 TO STA 638+60	RT	60
STA 638+14 TO STA 639+55	LT	141
STA 638+75	LT	1
SUBTOTAL		1816
TOTAL		1816

RIPRAP SCHEDULE

LOCATION	STONE RIPRAP, CLASS A4	FILTER FABRIC
STATION	SIDE	(SQ YD)
STA 638+75	LT	6
SUBTOTAL		6

* NOT A TOTAL QUANTITY

DRAINAGE SCHEDULE

LOCATION	PIPE CULVERT REMOVAL	METAL END SECTIONS 15"	PIPE DRAINS 15"	INLETS, TYPE A, TYPE 15 FRAME AND LID	REMOVING INLETS
STATION	SIDE	(FOOT)	(FOOT)	(EACH)	(EACH)
STA 638+60	LT	5			
STA 638+75	LT		1	6	1
PAY TOTAL		5	1	6	1

GUARDRAIL SCHEDULE

LOCATION	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6	TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGENT	GUARDRAIL REMOVAL	GUARDRAIL MARKERS, TYPE A	TERMINAL MARKER - DIRECT APPLIED
GUARDRAIL STATION	SIDE	(FOOT)	(EACH)	(EACH)	(FOOT)	(EACH)	(EACH)
STA 616+92 TO STA 624+83	RT				791		
STA 617+07 TO STA 618+63	LT				182		
STA 617+69.63	LT	62.5		2		4	2
STA 618+89 TO STA 624+99	LT				632		
STA 624+72.02	RT		675	1		6	1
STA 624+87.63	LT		575	1		6	1
STA 638+32.57/STA 648+68.80	RT	73.7		1			
STA 638+48.18/STA 649+09.39	LT	61.2		1			
PAY TOTAL		135	1312.5	4	1605	16	4

TEMPORARY MARKING SCHEDULE

LOCATION	SHORT TERM PAVEMENT MARKING	WORK ZONE PAVEMENT MARKING REMOVAL	TEMPORARY PAVEMENT MARKING - LINE 4"		
			SOLID WHITE	SOLID YELLOW	SKIP DASH YELLOW
STATION TO STATION	(FOOT)	(SQ FT)	(FOOT)	(FOOT)	(FOOT)
STA 623+50.00 TO STA 631+70.00	82	642.3	1640.0		205.0
STA 631+70.00 TO STA 639+00.00	73	815.2	1460.0	730.0	182.5
SUBTOTAL		155	1457.5	3100.0	387.5
PAY TOTAL		155	1458		4218

REMOVAL SCHEDULE

LOCATION	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	PAVEMENT REMOVAL	COMBINATION CURB AND GUTTER REMOVAL	PAVED SHOULDER REMOVAL	APPROACH SLAB REMOVAL
STATION TO STATION	(SQ YD)	(SQ YD)	(FOOT)	(SQ YD)	(SQ YD)
STA 623+50 TO STA 623+66	49.8				
STA 623+82 TO STA 624+00	56.0			25.4	
STA 624+52 TO STA 625+00		33.7			
STA 624+58 TO STA 624+72					54.3
STA 624+72 TO STA 624+84				12.9	
STA 638+20 TO STA 638+66					54.4
STA 638+26 TO STA 638+48			112.0		
STA 638+33 TO STA 639+45					
STA 638+48 TO STA 638+62		33.3			
STA 638+70 TO STA 639+00	84.0				
SUBTOTAL		189.8	67.0	112.0	38.3
PAY TOTAL		190	67	112	109

PAVEMENT MARKING SCHEDULE

LOCATION	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"			RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	RAISED REFLECTIVE PAVEMENT MARKER
	SOLID WHITE	SOLID YELLOW	SKIP DASH YELLOW			
STATION TO STATION	(FOOT)	(FOOT)	(FOOT)	(EACH)	(EACH)	(EACH)
STA 623+50.00 TO STA 631+70.00	1640.0		205.0	2	9	11
STA 631+70.00 TO STA 639+00.00	1460.0	730.0	182.5	1	8	9
SUBTOTAL		3100.0	730.0	3	17	20
PAY TOTAL			4218	3	17	20

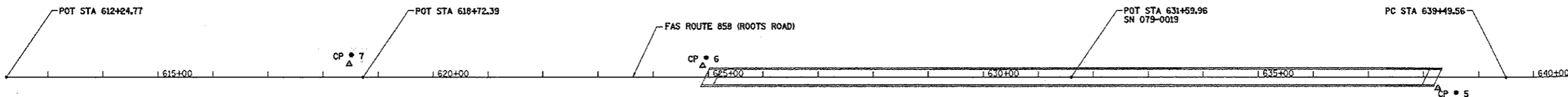
FAS 858 ROOTS ROAD

DESCRIPTION	COORDINATE	
	NORTHING	EASTING
POT STA 612+24.77	491588.45	355308.05
POT STA 618+72.39	491625.32	355954.62
POT STA 631+59.96	491698.63	357240.10
PC STA 639+49.56	491743.59	358028.42
PI STA 642+99.99	491763.54	358378.28
PT STA 646+46.95	491867.23	358713.02
POT STA 650+10.50	491974.80	359060.28
POT STA 654+47.21	492104.02	359477.44
POT STA 662+33.97	492336.82	360228.97

CONTROL POINTS

CONTROL POINT	COORDINATE	
	NORTHING	EASTING
CP #2	492256.06	360023.05
CP #3	491987.77	359166.91
CP #4	491834.37	358507.15
CP #5	491717.01	357906.51
CP #6	491681.19	356569.65
CP #7	491647.65	355928.40

EXISTING CURVE C-1
 PI STA. = 642+99.99
 Δ = 13° 56' 50" (L.T.)
 D = 2° 00' 00"
 R = 2,864.90'
 T = 350.43'
 L = 697.39'
 E = 21.35'
 P.C. STA = 639+49.56
 P.T. STA = 646+46.95



BENCHMARK • ROOTS-2

BENCHMARK • ROOTS-3

BENCHMARK • ROOTS-4

BENCHMARK • ROOTS-5

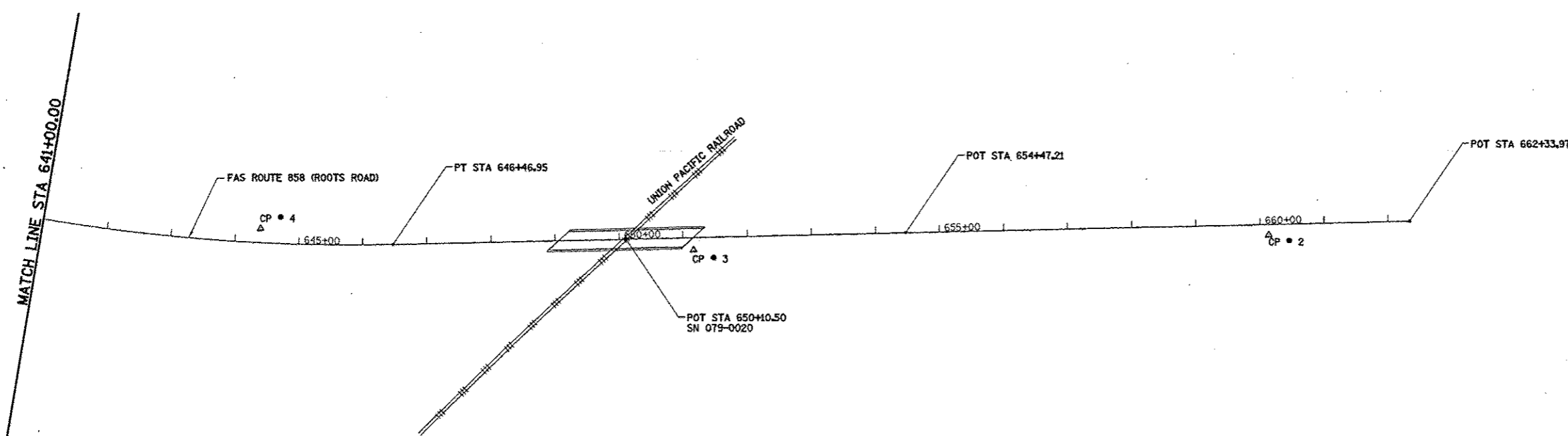
CUT "□" ON BRIDGE CURB @ N.W. CORNER OF ROOTS ROAD BRIDGE (SN 079-0020) ELEV 429.14

CUT "□" ON BRIDGE CURB @ N.E. CORNER OF ROOTS ROAD BRIDGE (SN 079-0019) ELEV 420.87

CUT "□" ON BRIDGE CURB @ N.W. CORNER OF ROOTS ROAD BRIDGE (SN 079-0019) ELEV 412.19

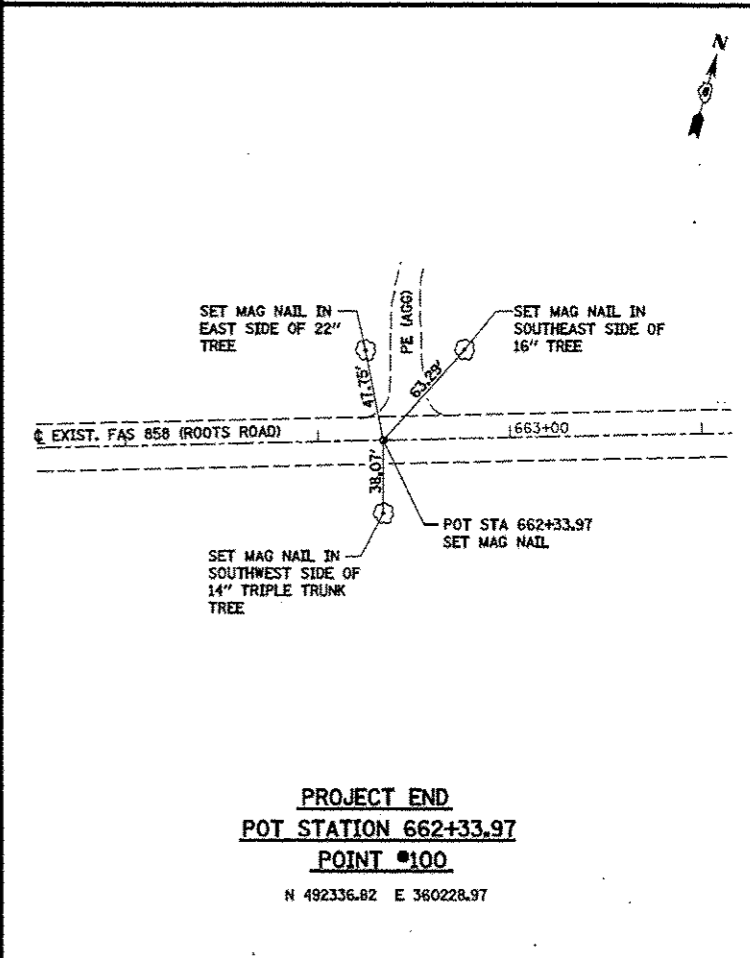
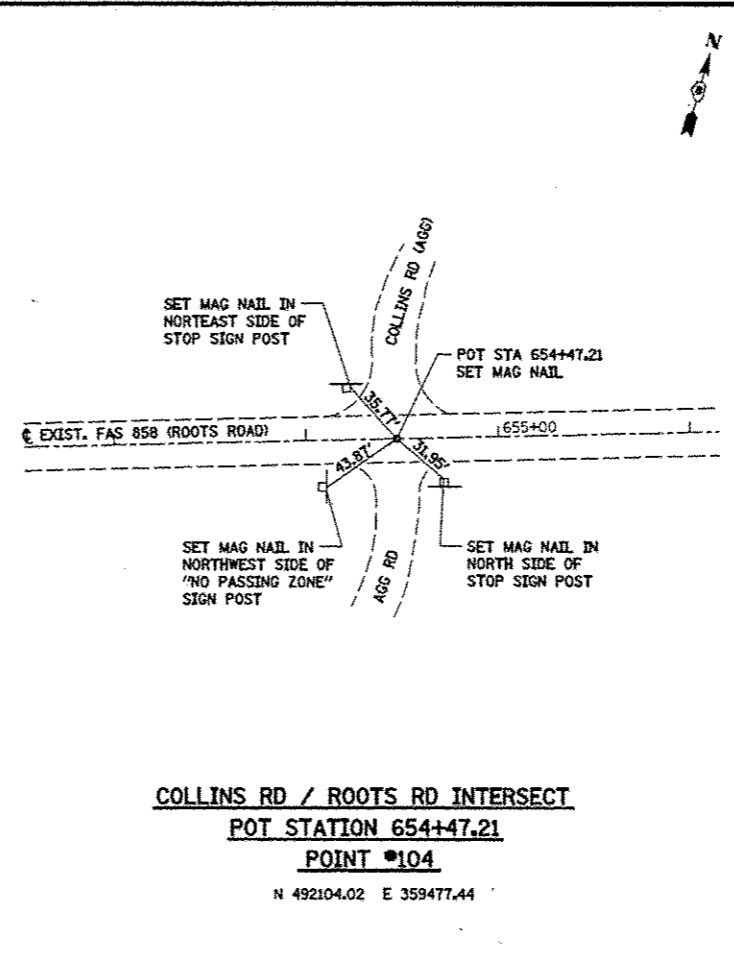
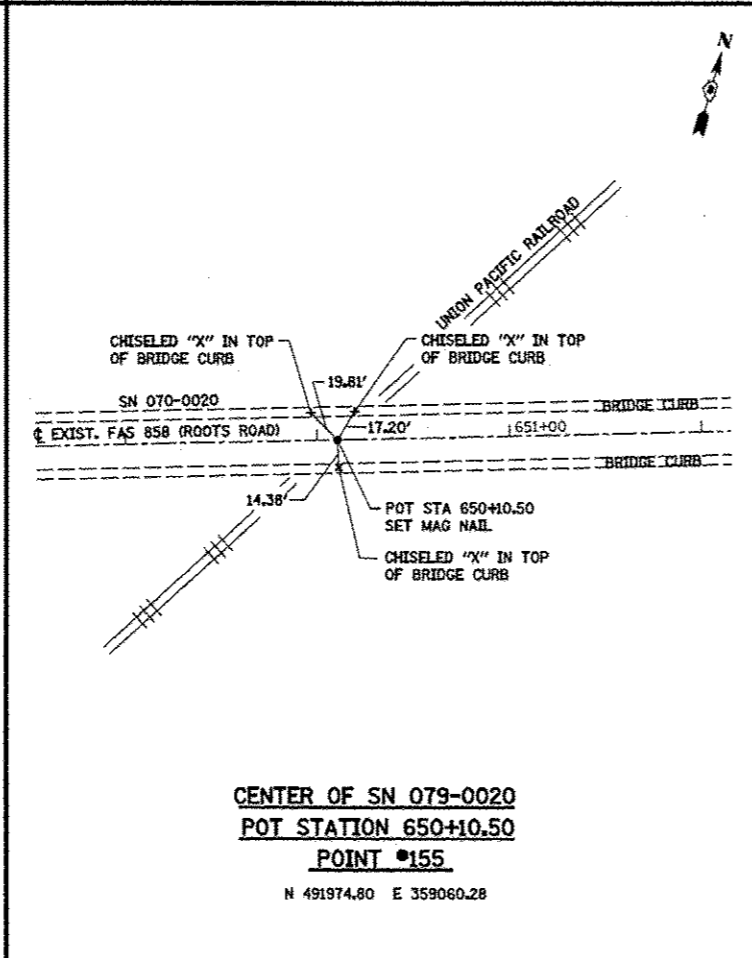
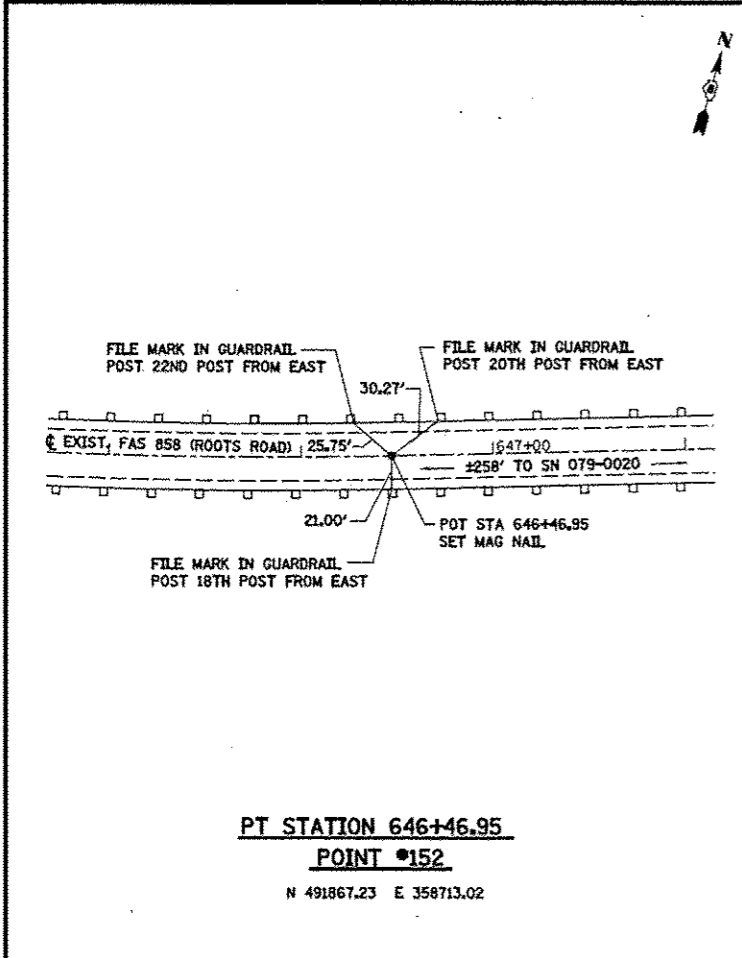
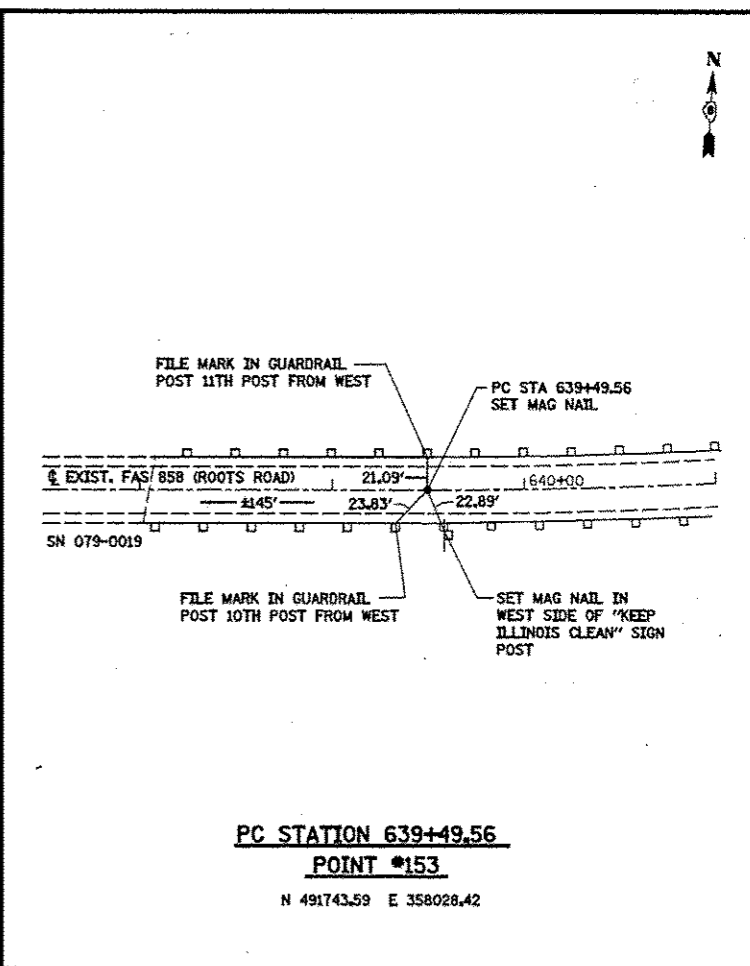
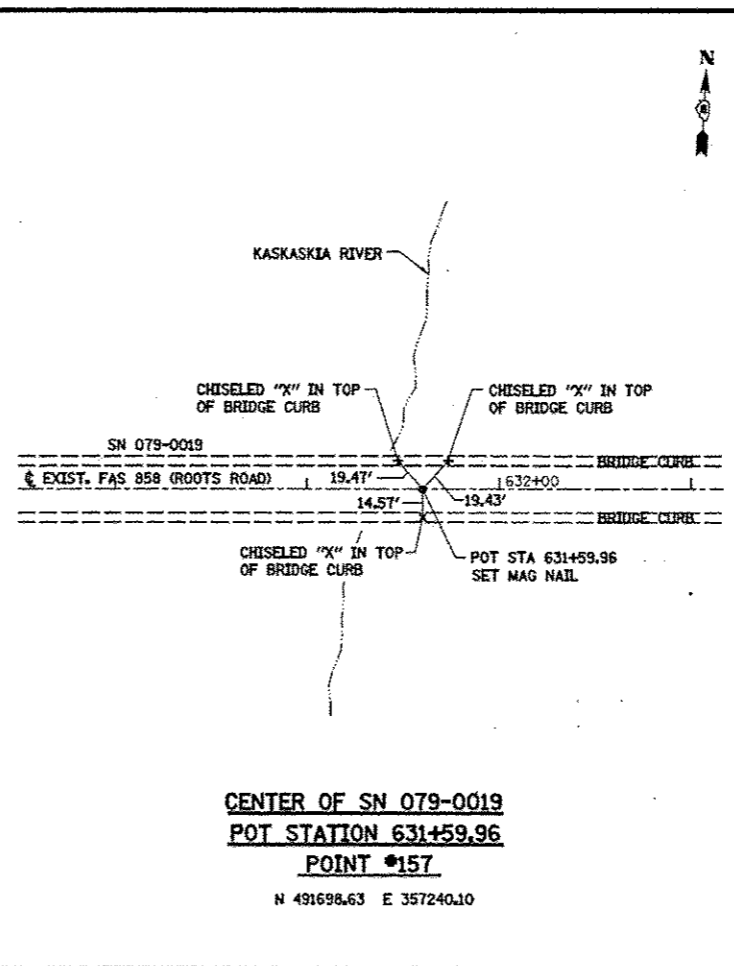
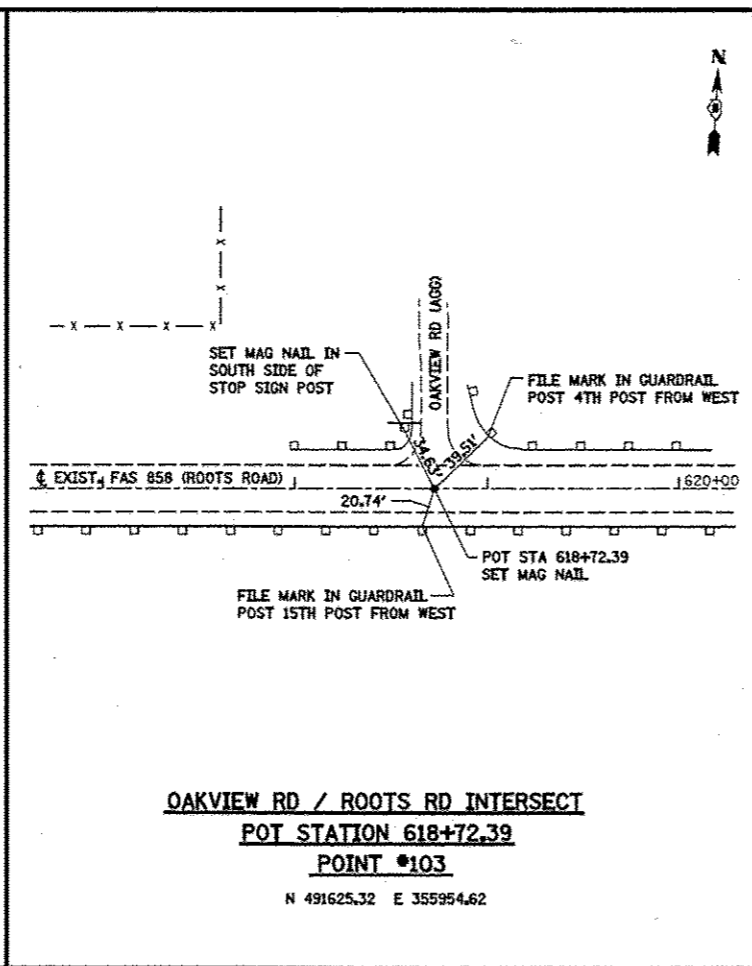
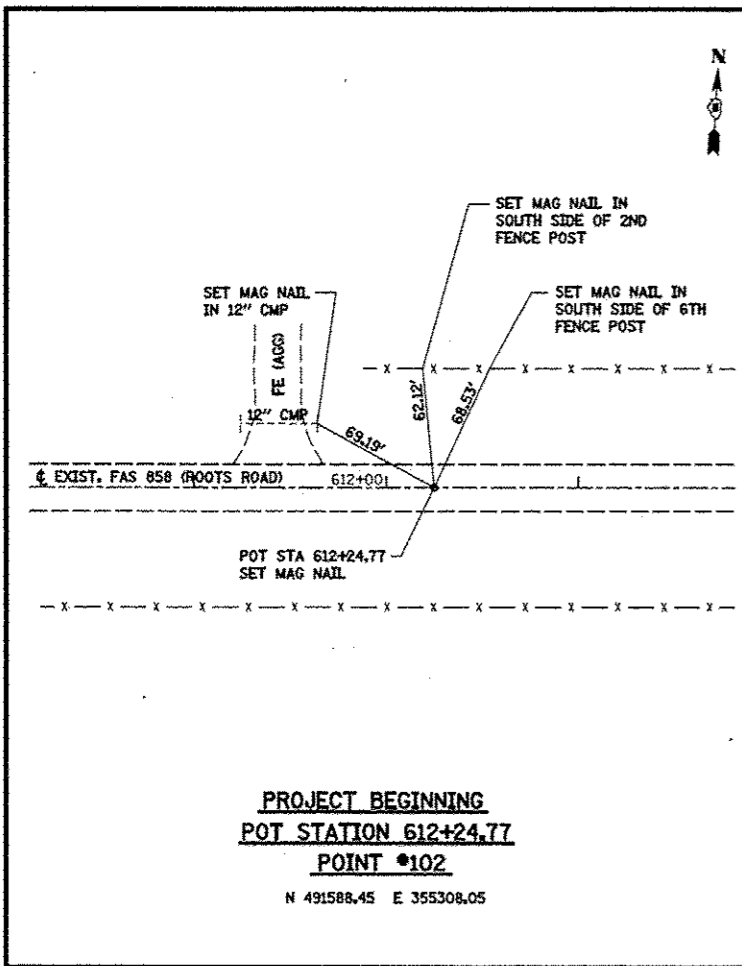
RAILROAD SPIKE IN POWER POLE ON SOUTH SIDE OF ROOTS ROAD ± 0.33 MILES WEST OF WEST END OF SN 079-0019 ELEV 389.15

MATCH LINE STA 641+00.00



MATCH LINE STA 641+00.00

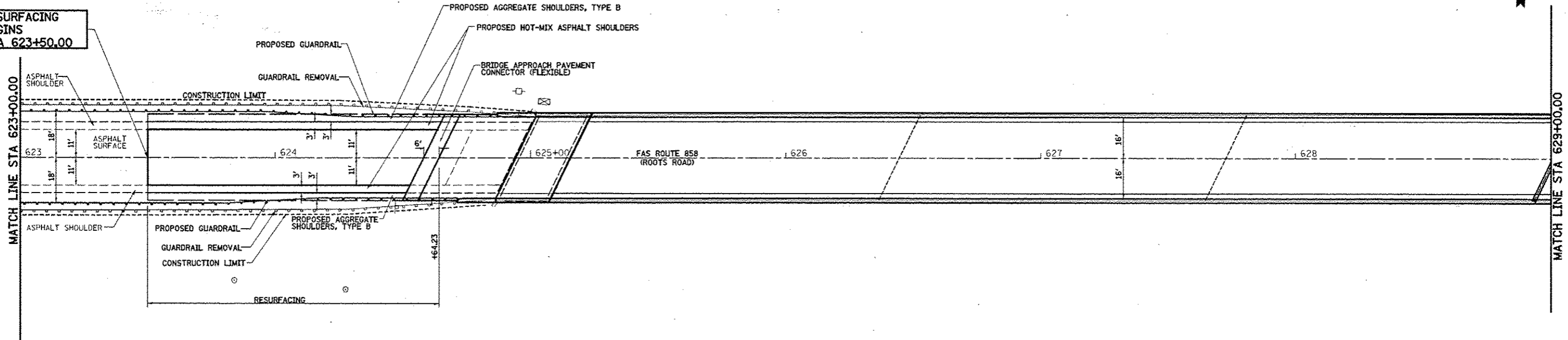
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PROJECT = 40-0022-DIV Roots Rd over Kaskaskia Riv	DESIGNED BY = dgoncadi	DRAWN - PDB	REVISED -				SCALE = 1"=100'	SHEET NO. 1 OF 2 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. = ILLINOIS FED. AID PROJECT	CONTRACT NO. 76HB1
	PLOT SCALE = 200.0000 / in.	CHECKED - BRM	REVISED -								
	PLOT DATE = 2/26/2015	DATE - 01-26-15	REVISED -								



FILE NAME =	USER NAME = betay	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HORIZONTAL CONTROL & TIE POINTS, FAS 858 (ROOTS ROAD)		F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 13			
Sn\Projects\410-0922-EHY Roots Rd over	kaskaskia River\ dgn\CADD Sheets\0876H01-sh	DRAWN - WJS	REVISED -				SCALE NONE	SHEET NO. 2 OF 2 SHEETS	STA. TO STA.	ILLINOIS FEDERAL AID PROJECT				
		CHECKED - BRM	REVISED -											
		DATE - 01-26-15	REVISED -											



RESURFACING BEGINS STA 623+50.00

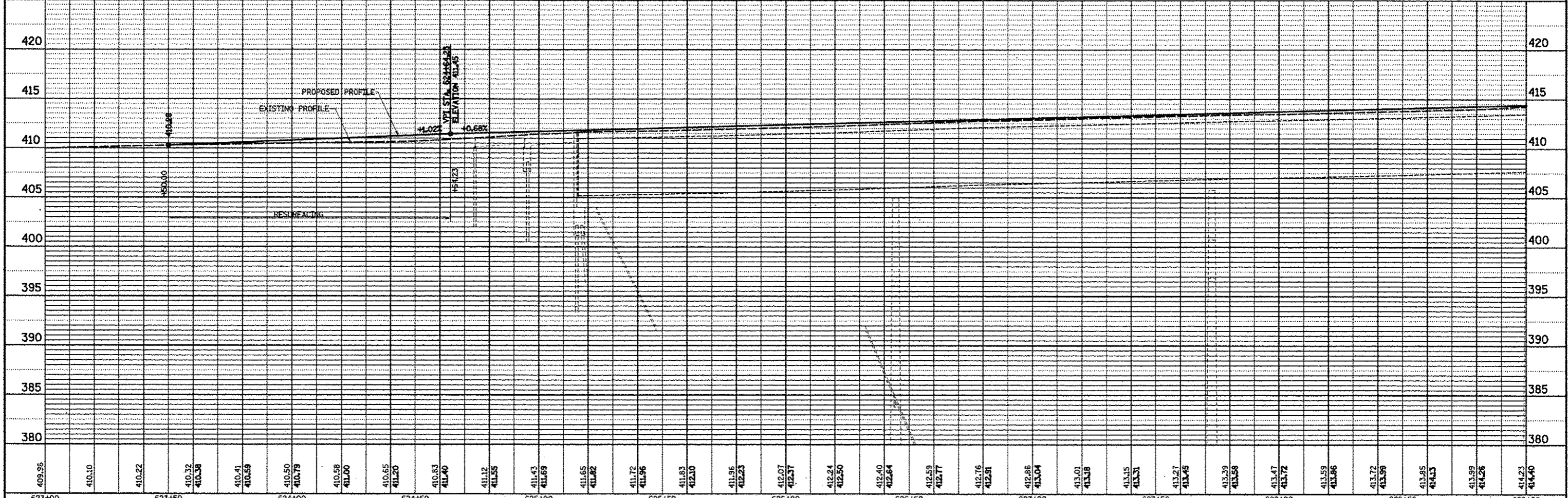


NOTE: SEE GUARDRAIL DETAIL SHEETS FOR EXISTING AND PROPOSED GUARDRAIL. FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS



PLAN DATE BY CHECKED BY ALIGNED CHECKED BY RT. OF WAY CHECKED BY ADD FILE NAME NO. NO. NO. NO.

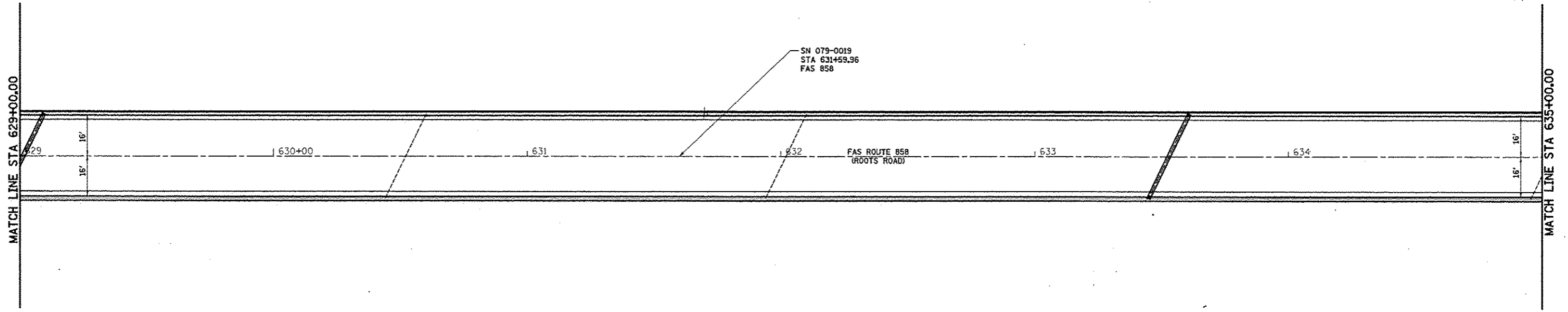
PROFILE DATE BY CHECKED BY GRADE CHECKED BY GRADE NOTED BY STRUCTURE NOTATIONS CHECKED BY NO. NO. NO. NO.



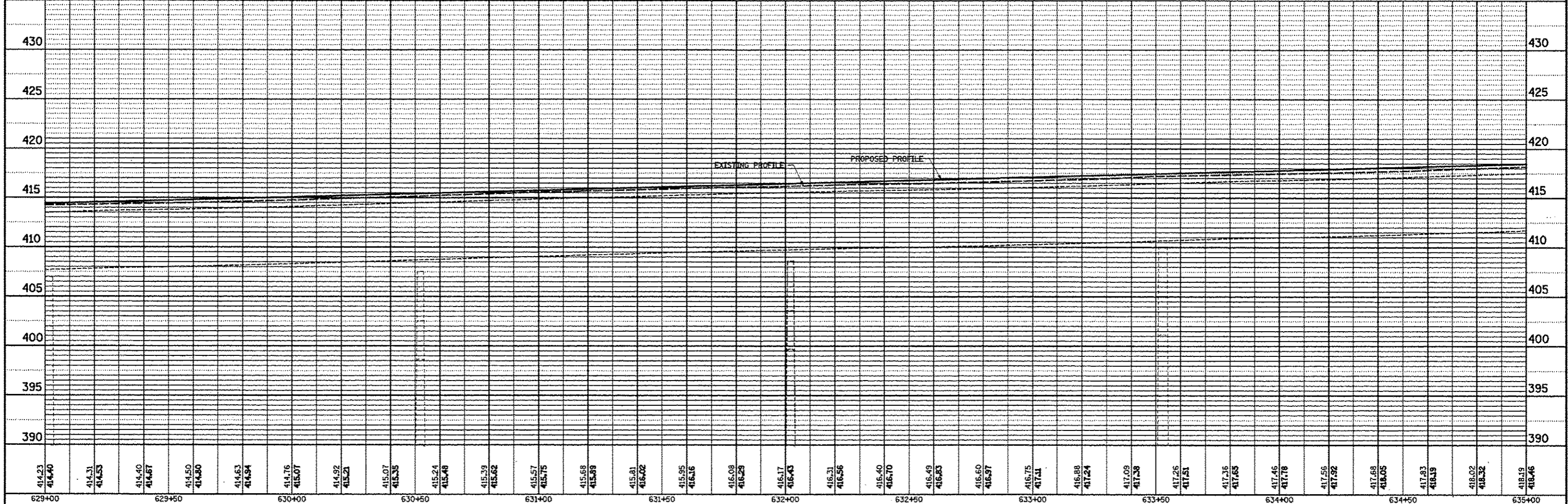
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Drawn by: bctng	Checked by: BRM	DATE: 01-26-15	REVISED -				
Plot Scale: 1/4" = 10'	Plot Date: 2/26/2015	DATE: 01-26-15	REVISED -				
Plot Date: 2/26/2015	DATE: 01-26-15	REVISED -	REVISED -				

PLAN	DATE
DATE	BY
REVISIONS	
NO. OF REV. CHECKED	
NO. OF REV. CHECKED	
NO. OF REV. CHECKED	
NO. OF REV. CHECKED	
NO. OF REV. CHECKED	
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PROFILE	DATE
DATE	BY
REVISIONS	
NO. OF REV. CHECKED	
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NO. OF REV. CHECKED	



NOTE:
SEE GUARDRAIL DETAIL SHEETS FOR EXISTING AND PROPOSED GUARDRAIL.
FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS



41.23 41.40	41.31 41.53	41.40 41.67	41.50 41.80	41.63 41.94	41.76 42.07	41.92 42.24	42.07 42.35	42.24 42.46	42.39 42.62	42.57 42.75	42.68 42.89	42.81 43.02	42.95 43.16	43.08 43.29	43.17 43.45	43.31 43.56	43.40 43.70	43.49 43.83	43.60 43.97	43.75 44.11	43.88 44.24	44.08 44.38	44.26 44.51	44.36 44.65	44.46 44.78	44.56 44.92	44.68 45.05	44.83 45.19	45.02 45.32	45.19 45.46	
629+00	629+50	630+00	630+50	631+00	631+50	632+00	632+50	633+00	633+50	634+00	634+50	635+00																			

FILE NAME =
USER NAME = bobby
DRAWN - PDB
CHECKED - BRM
DATE - 01-26-15

DESIGNED - ESW
DRAWN - PDB
CHECKED - BRM
DATE - 01-26-15

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: 1"=20'
SHEET NO. 3 OF 4 SHEETS
STA. 629+00.00 TO STA. 635+00.00

PLAN AND PROFILE

F.A.S. 858
SECTION 12-B-1
COUNTY RANDOLPH
TOTAL SHEETS 90
SHEET NO. 16
CONTRACT NO. 76H81
ILLINOIS FED. AID PROJECT

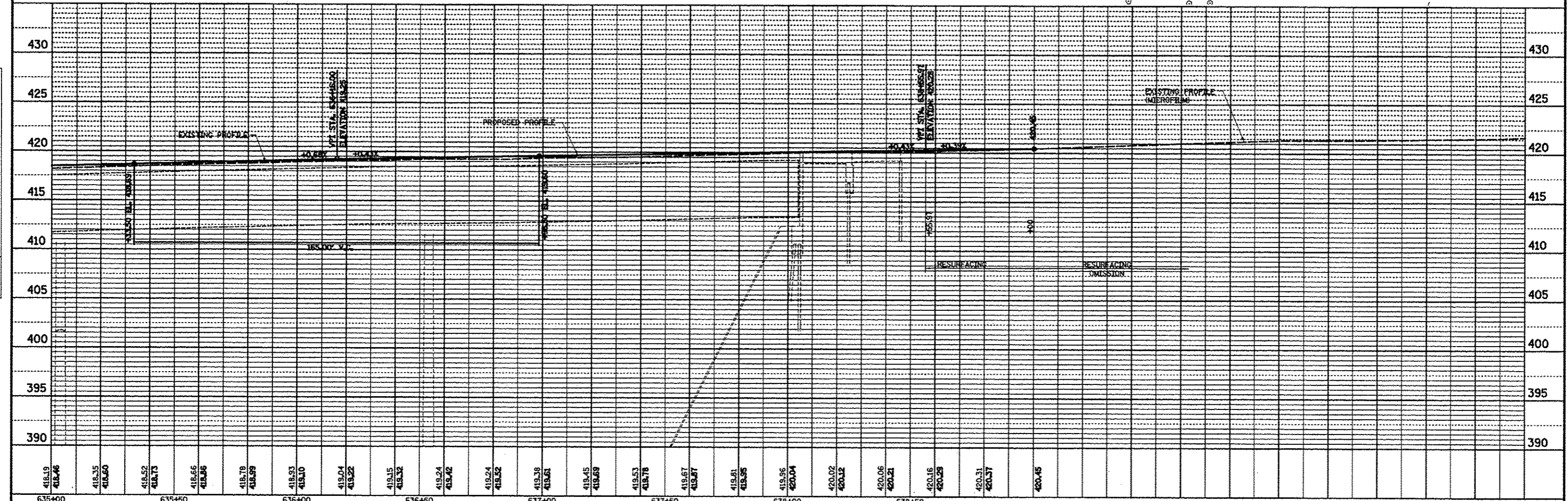
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 SURVEYED EXISTING
 ALIGNMENT CHECKED
 BY: []
 DATE: []
 NOTE BOOK NO. []
 PLOT FILE NAME []

PROFILE
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 BY: []
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 NOTE BOOK NO. []
 PLOT FILE NAME []

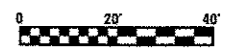
MATCH LINE STA 635+00.00

EXISTING CURVE C-1
 PI STA = 642+99.99
 $\Delta = 13^{\circ} 56' 50''$ (LT)
 $D = 2^{\circ} 00' 00''$
 $R = 2,864.90'$
 $T = 350.43'$
 $L = 697.39'$
 $E = 21.35'$
 P.C. STA = 639+49.56
 P.T. STA = 646+46.95

NOTE:
 SEE GUARDRAIL DETAIL SHEETS FOR EXISTING AND PROPOSED GUARDRAIL.
 FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS



FILE NAME = S:\Projects\140-022-011 Roots Rd over Kaskaskia River\140-022-011-Plan-Profile.dwg	USER NAME = bctwy	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE F.A.S. RTE. 858 SECTION 12-B-1 COUNTY RANDOLPH TOTAL SHEETS 90 SHEET NO. 17 SCALE: 1"=20' SHEET NO. 4 OF 4 SHEETS STA. 635+00.00 TO STA. 641+00.00 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
PLOT SCALE = 1/8"=1'-0"	DATE = 01-26-15	DRAWN - PDB	REVISED -		
PLOT DATE = 2/27/2015	DATE = 01-26-15	CHECKED - BRM	REVISED -		
		DATE = 01-26-15	REVISED -		



EROSION CONTROL & SEDIMENT CONTROL NOTES

ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLANS. PRIOR TO APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE THE MANUFACTURER RECOMMENDED INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

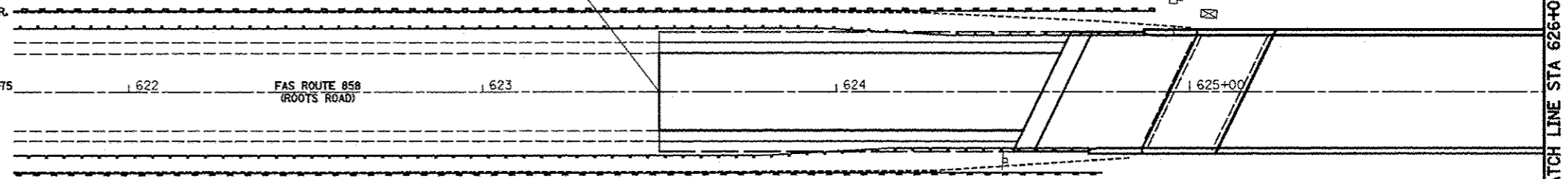
TEMPORARY SEEDING SHALL BE COMPLETED ON A WEEKLY BASIS ON EXPOSED GROUND AND WILL NOT BE PAID FOR SEPARATELY BUT CONSIDERED AS INCLUDED IN THE PERMANENT SEEDING ITEMS.

ALL AREAS DISTURBED FOR ANY REASON SHALL BE PERMANENTLY SEEDDED AS DIRECTED BY THE ENGINEER. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE SEEDDED AT THE CONTRACTOR'S EXPENSE.

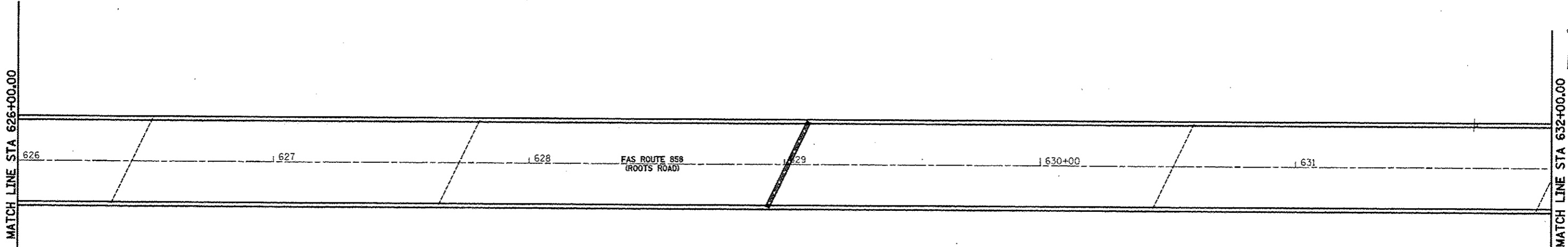
FINAL SEEDING SHALL BE PERFORMED AS SOON AS POSSIBLE.

QUANTITIES FOR PERIMETER EROSION BARRIER WERE INCLUDED FROM STATION 617+00 TO STATION 624+75 RT, STATION 617+65 TO STATION 618+70 LT, AND STATION 618+65 TO STATION 624+90 LT. SEE SCHEDULES FOR QUANTITIES.

RESURFACING BEGINS STA 623+50.00



FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS



LEGEND

ITEM	SYMBOL
TEMPORARY DITCH CHECKS	
PERIMETER EROSION BARRIER	
INLET AND PIPE PROTECTION	
SEDIMENT BASIN	

FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS

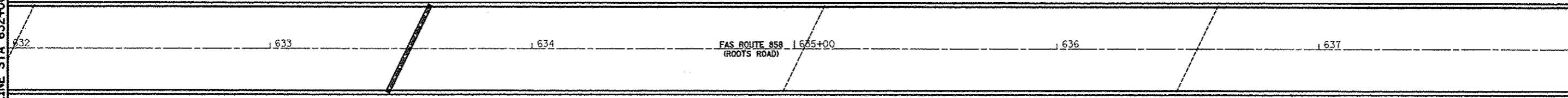


FILE NAME =	USER NAME = bwtaj	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EROSION AND SEDIMENT CONTROL PLAN	F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 18		
#FILEL#	PLOT SCALE = 48,000.00' / 1" =	DRAWN - PDB	REVISED -			SCALE: 1"=20'	SHEET NO. 1 OF 2 SHEETS	STA. 629+00.00 TO STA. 641+00.00	CONTRACT NO. 76H81			
	PLOT DATE = 2/26/2015	CHECKED - BRM	REVISED -			ILLINOIS FED. AID PROJECT						
		DATE - 01-26-15	REVISED -									



MATCH LINE STA 632+00.00

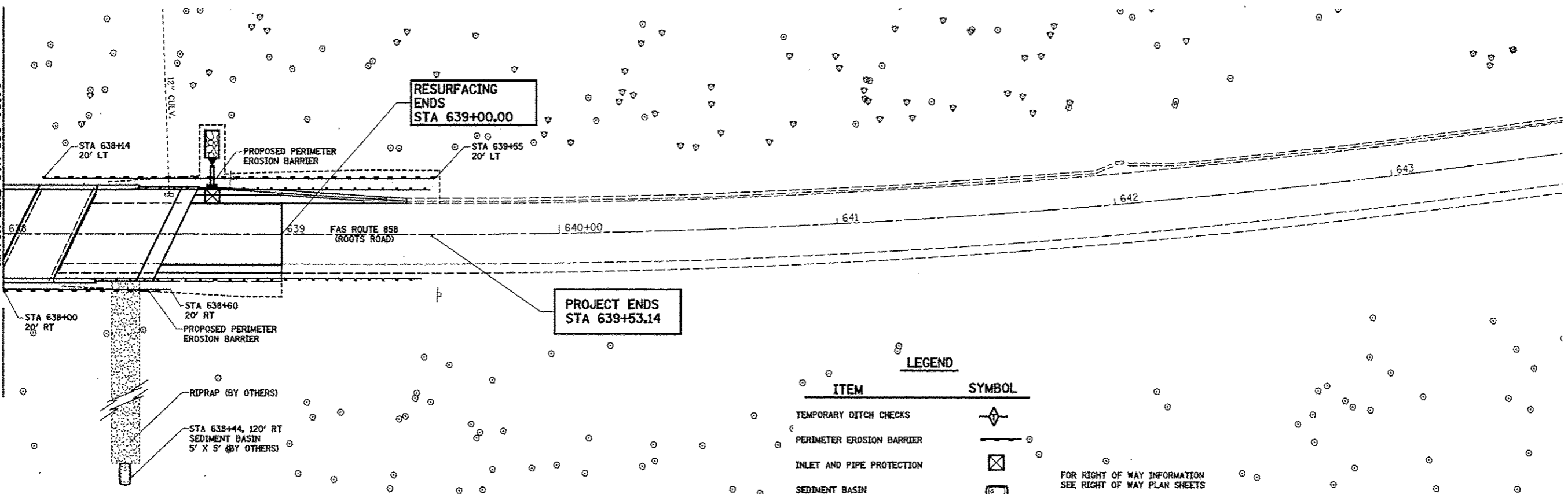
MATCH LINE STA 638+00.00



FOR RIGHT OF WAY INFORMATION
SEE RIGHT OF WAY PLAN SHEETS



MATCH LINE STA 638+00.00

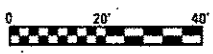


PROJECT ENDS
STA 639+53.14

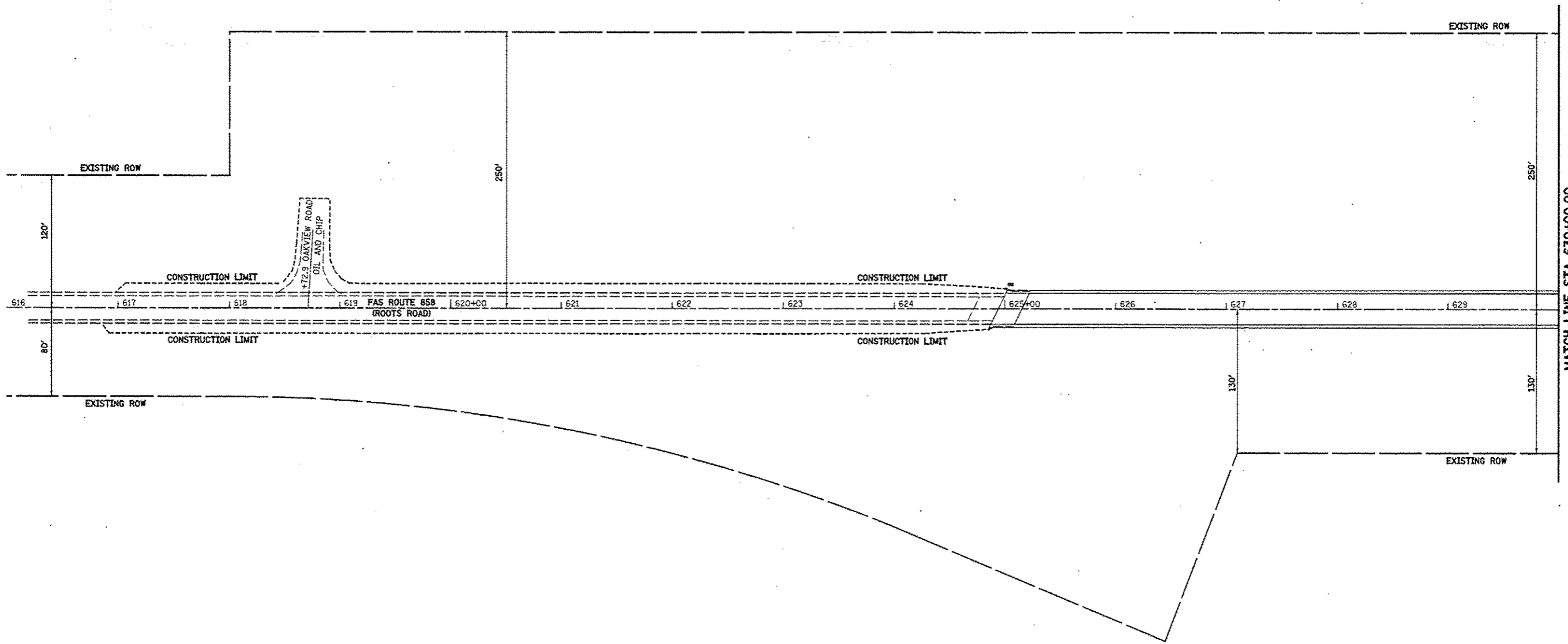
LEGEND

ITEM	SYMBOL
TEMPORARY DITCH CHECKS	
PERIMETER EROSION BARRIER	
INLET AND PIPE PROTECTION	
SEDIMENT BASIN	

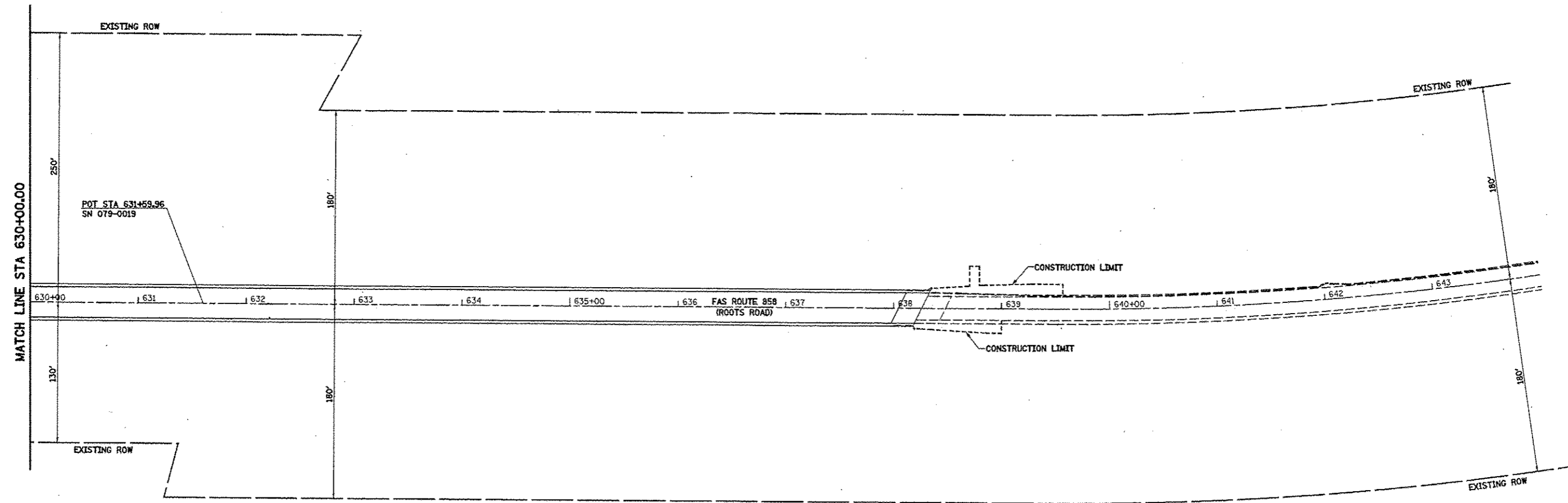
FOR RIGHT OF WAY INFORMATION
SEE RIGHT OF WAY PLAN SHEETS



FILE NAME #	USER NAME = bsbj	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EROSION AND SEDIMENT CONTROL PLAN	F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 19	
#FILE#	PLOT SCALE = 48,0000' / 1" =	DRAWN - PDB	REVISED -			SCALE: 1"=20'	SHEET NO. 2 OF 2 SHEETS	STA. 641+00.00 TO STA. 653+00.00		CONTRACT NO. 76H81	
	PLOT DATE = 2/26/2015	CHECKED - BRM	REVISED -			ILLINOIS FED. AID PROJECT					
		DATE - 01-26-15	REVISED -								



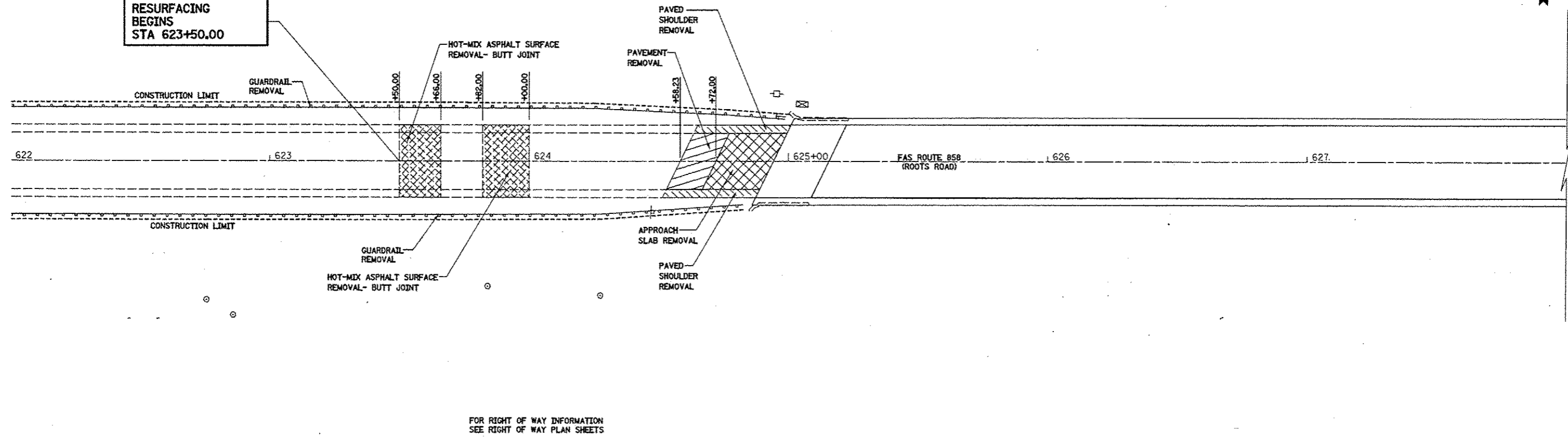
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#FILE#		DRAWN - WJS	REVISED -			858	12-B-1	RANDOLPH	90	20	
		CHECKED - BRM	REVISED -			CONTRACT NO. 76H81					
		DATE - 01-26-15	REVISED -			ILLINOIS FED. AID PROJECT					
				SCALE: 1"=50'		SHEET NO. 1 OF 2 SHEETS		STA. 616+00.00 TO STA. 630+00.00			



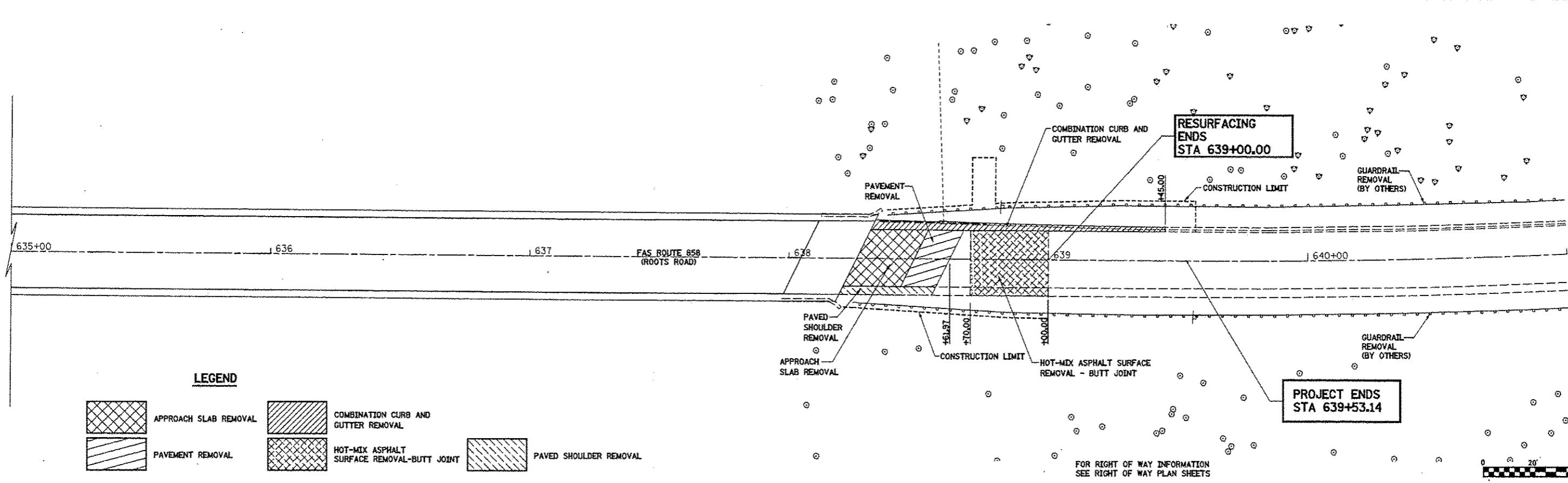
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	PLOT SCALE = 1/8"=50'	CHECKED - BRM	REVISED -		SCALE: 1"=50'	SHEET NO. 2 OF 2 SHEETS	STA. 630+00.00 TO STA. 644+00.00	CONTRACT NO. 76H81				
PLOT DATE = 2/26/2015	DATE - 01-26-15	REVISED -	REVISED -		ILLINOIS FED. AID PROJECT							



RESURFACING BEGINS STA 623+50.00



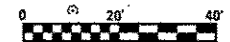
FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS



LEGEND

- APPROACH SLAB REMOVAL
- COMBINATION CURB AND GUTTER REMOVAL
- PAVEMENT REMOVAL
- HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT
- PAVED SHOULDER REMOVAL

FOR RIGHT OF WAY INFORMATION SEE RIGHT OF WAY PLAN SHEETS

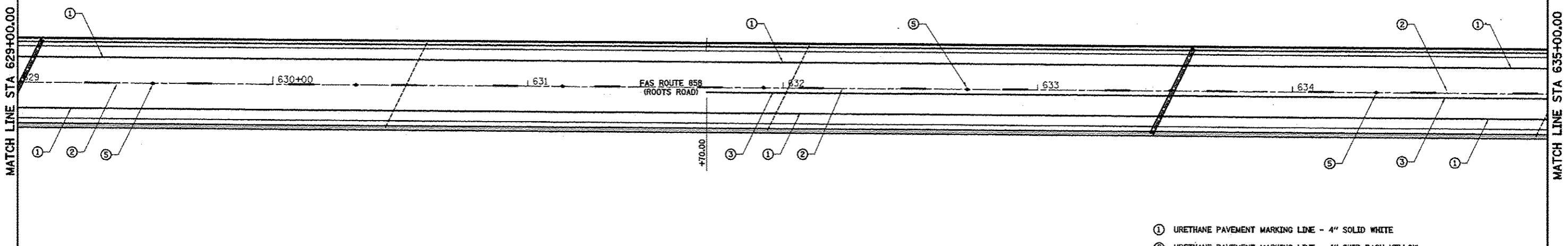
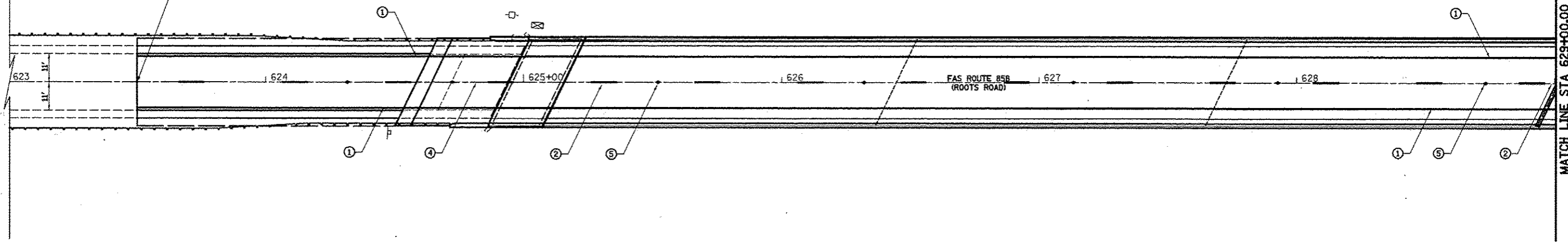


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FILE#		DRAWN - PDB	REVISED -		SCALE: 1"=20'	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			
		CHECKED - BRM	REVISED -									
		DATE - 01-26-15	REVISED -									

PROJECT ENDS STA 639+53.14

RESURFACING ENDS STA 639+00.00

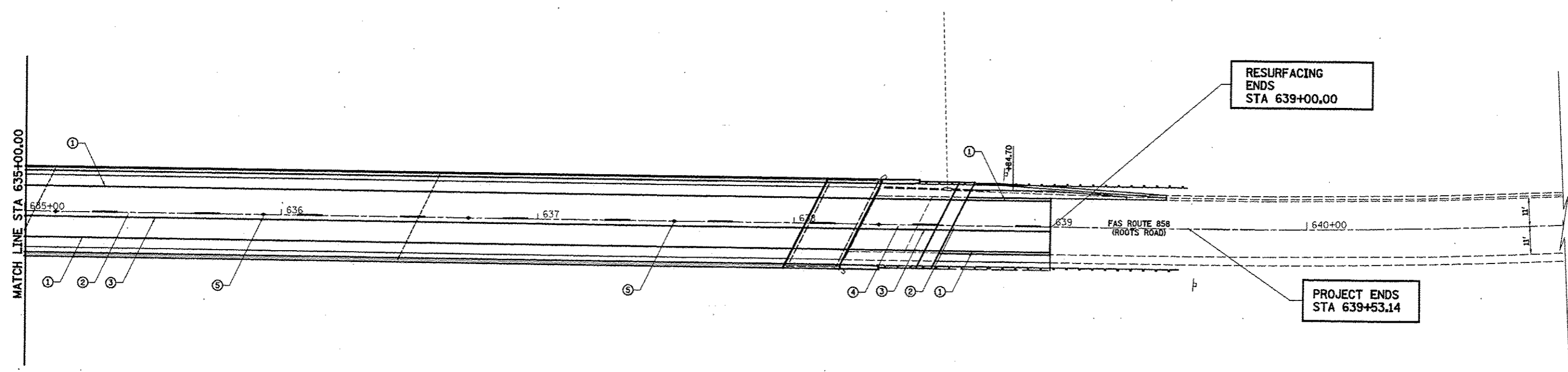
RESURFACING
BEGINS
STA 623+50.00



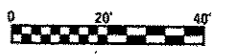
- ① URETHANE PAVEMENT MARKING LINE - 4" SOLID WHITE
- ② URETHANE PAVEMENT MARKING LINE - 4" SKIP DASH YELLOW
- ③ URETHANE PAVEMENT MARKING LINE - 4" SOLID YELLOW
- ④ RAISED REFLECTIVE PAVEMENT MARKERS - AMBER, TWO-WAY
- ⑤ RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) - AMBER, TWO-WAY



FILE NAME *FILEL*	USER NAME = b61ay	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING - FAS 858 (ROOTS ROAD)		F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 23
	PLOT SCALE = 48.0000' / 1" =	CHECKED - BRM	REVISED -				SCALE = 1" = 20'	SHEET NO. 1 OF 2 SHEETS	STA. 623+00.00 TO STA. 635+00.00	CONTRACT NO. 76H81	
	PLOT DATE = 2/26/2015	DATE - 01-26-15	REVISED -								



- ① URETHANE PAVEMENT MARKING LINE - 4" SOLID WHITE
- ② URETHANE PAVEMENT MARKING LINE - 4" SKIP DASH YELLOW
- ③ URETHANE PAVEMENT MARKING LINE - 4" SOLID YELLOW
- ④ RAISED REFLECTIVE PAVEMENT MARKERS - AMBER, TWO-WAY
- ⑤ RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) - AMBER, TWO-WAY



FILE NAME =	USER NAME = betaj	DESIGNED - ESW	REVISED -
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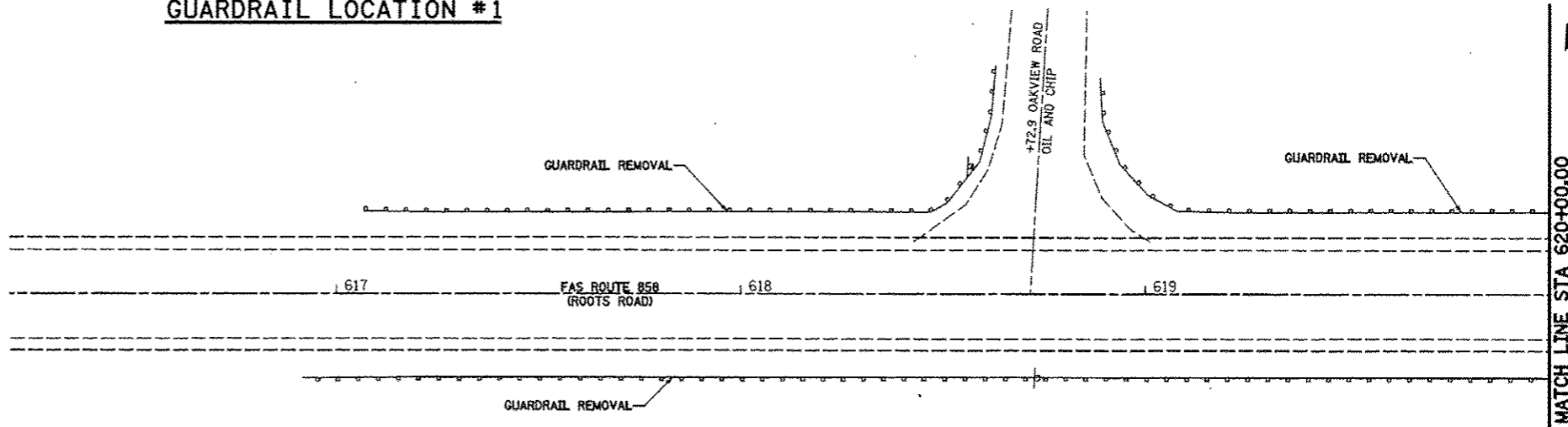
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING - FAS 858 (ROOTS ROAD)

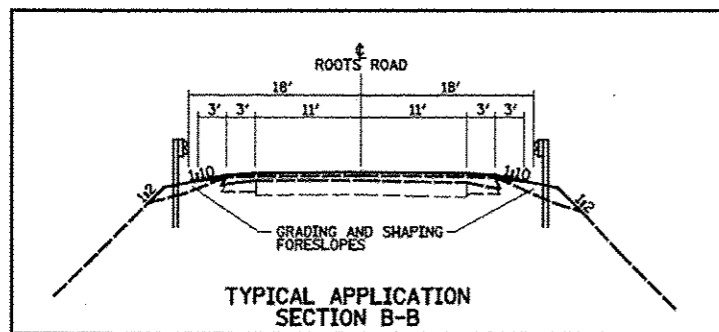
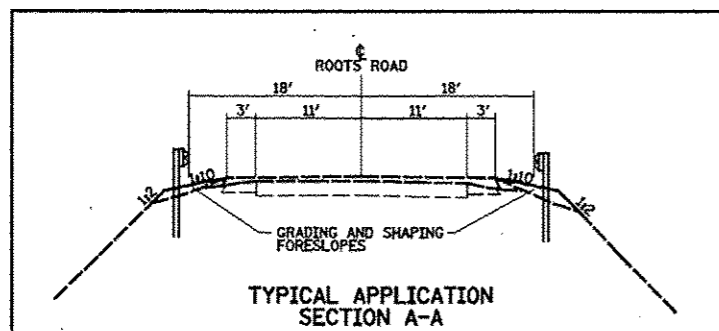
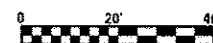
SCALE: 1"=20' SHEET NO. 2 OF 2 SHEETS STA. 635+00.00 TO STA. 652+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	24
CONTRACT NO. 76N81				
ILLINOIS FED. AID PROJECT				

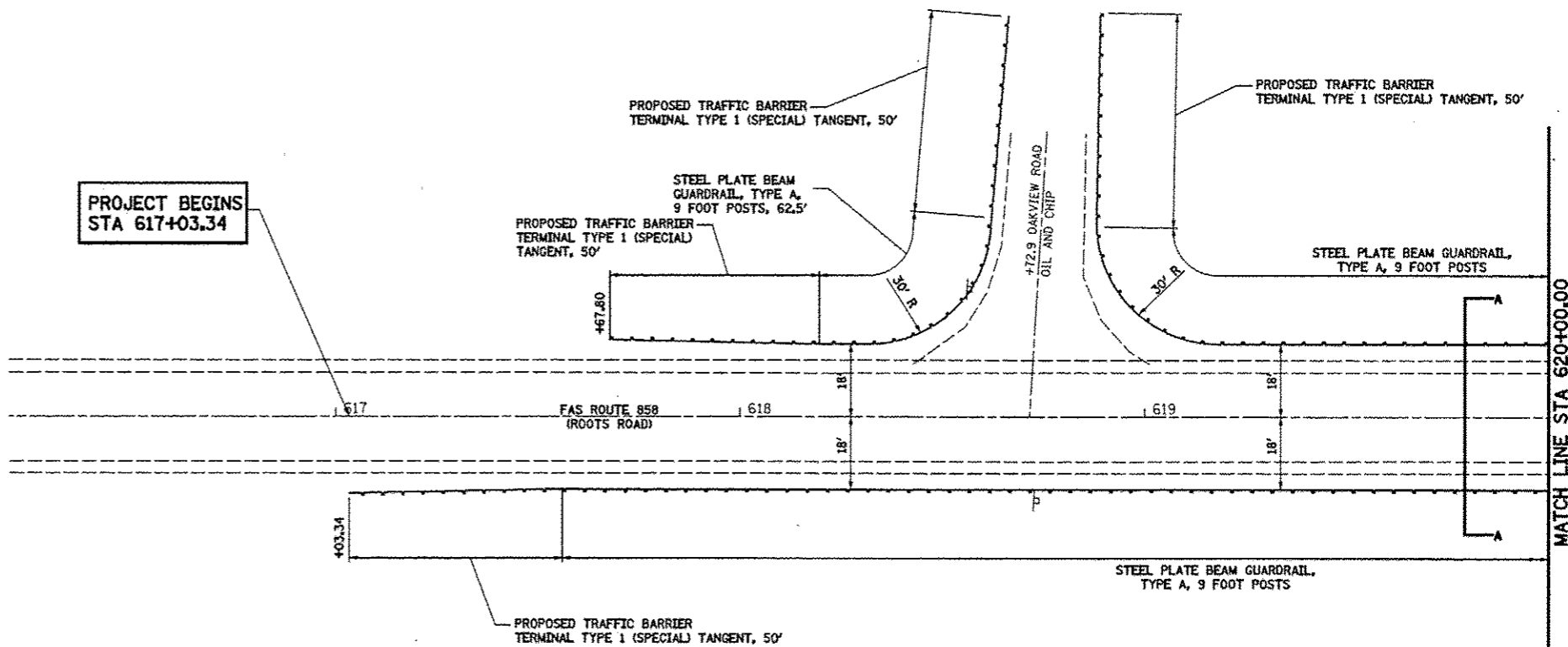
GUARDRAIL LOCATION #1



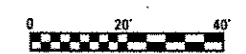
EXISTING CONDITION



PROJECT BEGINS
STA 617+03.34

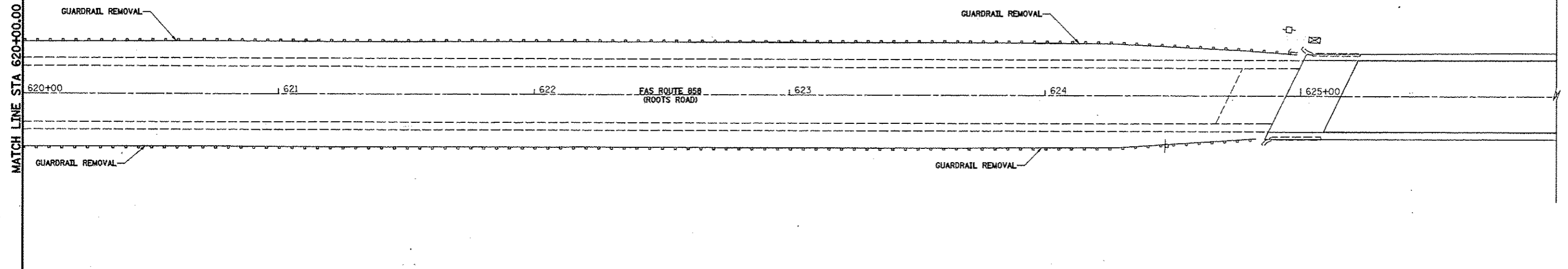


PROPOSED CONDITION

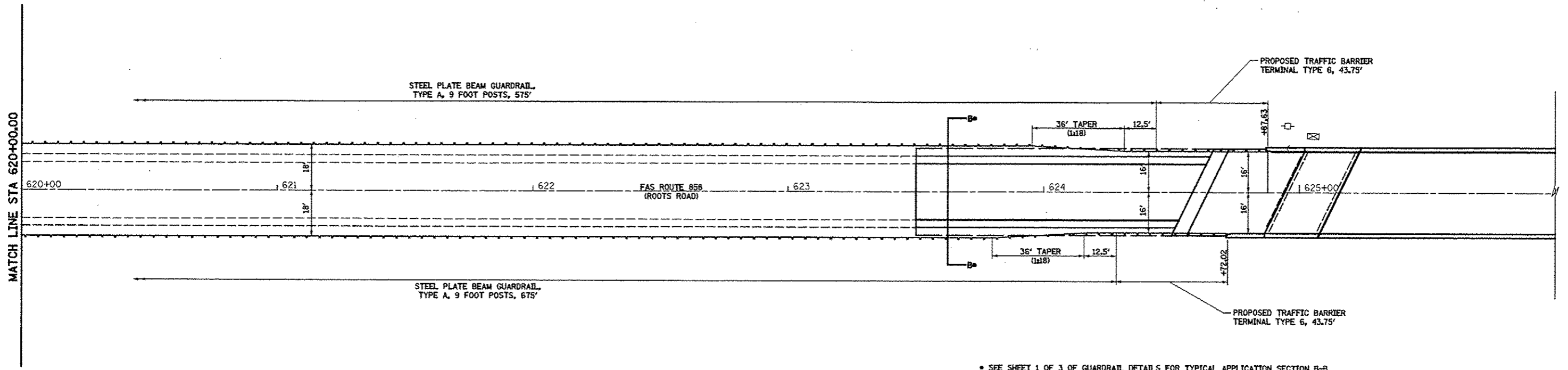
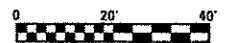


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FILE #		DRAWN - PDB	REVISED -			858	12-B-1	RANDOLPH	90	25
	PLOT SCALE = 48.8688' / in.	CHECKED - BRM	REVISED -			CONTRACT NO. 76H81			ILLINOIS FED. AID PROJECT	
	PLOT DATE = 2/26/2015	DATE - 01-26-15	REVISED -			SCALE: 1"=20'	SHEET NO. 1 OF 3 SHEETS	STA. 614+00.00 TO STA. 620+00.00		

GUARDRAIL LOCATION #1

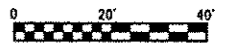


EXISTING CONDITION



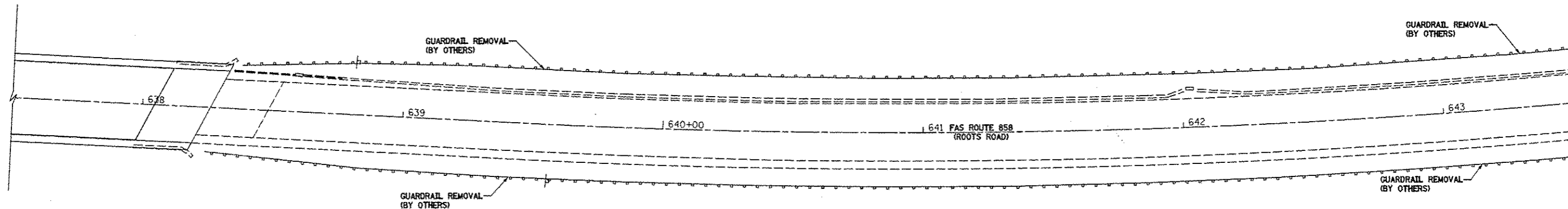
• SEE SHEET 1 OF 3 OF GUARDRAIL DETAILS FOR TYPICAL APPLICATION SECTION B-B

PROPOSED CONDITION

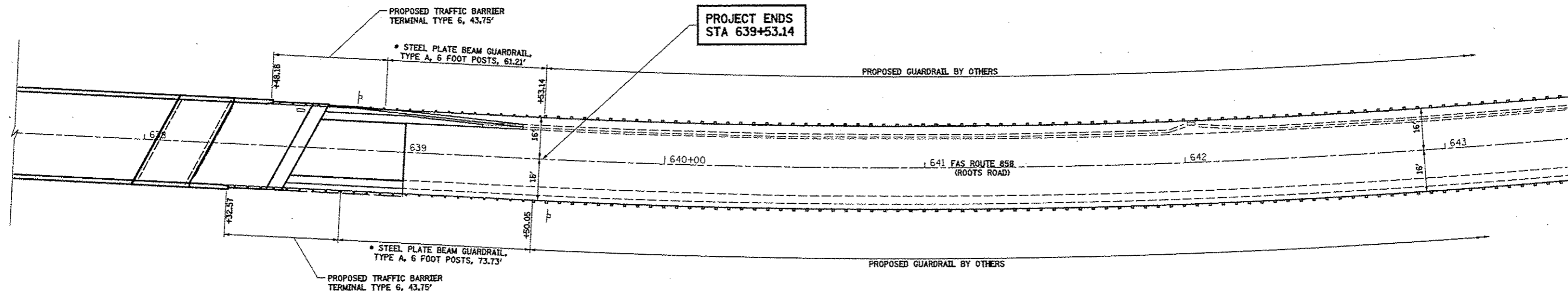


FILE NAME = 9FILEL4	USER NAME = betony	DESIGNED - ESW	REVISED - -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GUARDRAIL DETAILS FAS 858, ROOTS ROAD		F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 26
	PLOT SCALE = 48,0000 1/4" = 100'	DRAWN - PDB	REVISED - -		SCALE = 1"=20'	SHEET NO. 2 OF 3 SHEETS	STA. 620+00.00 TO STA. 626+00.00	CONTRACT NO. 76H81		ILLINOIS FED. AID PROJECT	
	PLOT DATE = 2/26/2015	CHECKED - BRM	REVISED - -								
		DATE - 01-26-15	REVISED - -								

GUARDRAIL LOCATION #2



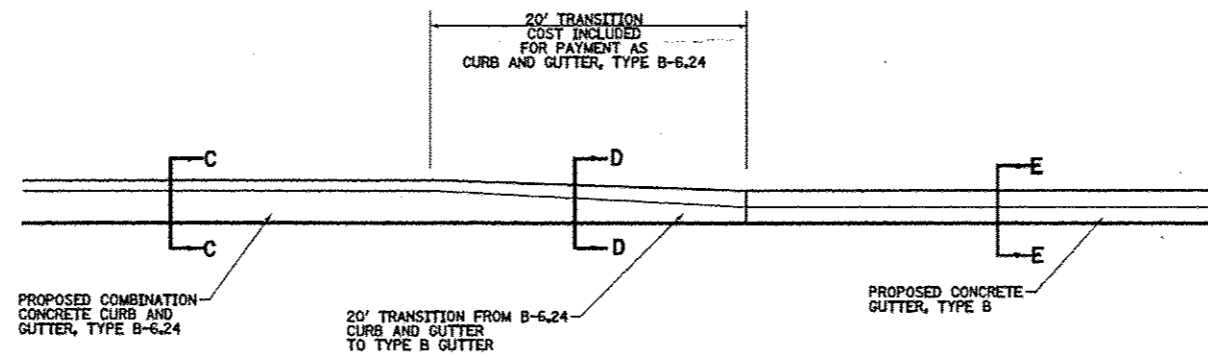
EXISTING CONDITION



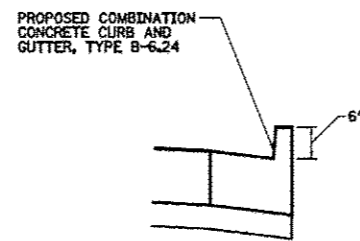
PROPOSED CONDITION

• THIS REACH OF STEEL PLATE BEAM GUARDRAIL, TYPE A REQUIRES AT LEAST ONE SPLICE DETAIL. (SEE MISCELLANEOUS DETAILS)

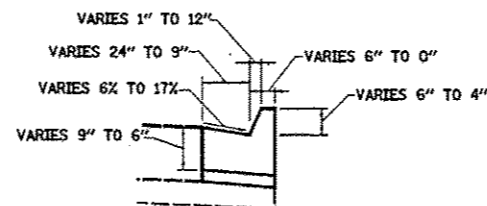
FILE NAME =	USER NAME = betty	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GUARDRAIL DETAILS FAS 858, ROOTS ROAD	F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 27		
#FILE#	PLOT SCALE = 48,0000 / in.	DRAWN - PDB	REVISED -			SCALE: 1"=20'	SHEET NO. 3 OF 3 SHEETS	STA. 637+50.00 TO STA. 643+50.00	CONTRACT NO. 76H01			
	PLOT DATE = 2/26/2015	CHECKED - BRM	REVISED -			ILLINOIS FED. AID PROJECT						
		DATE - 01-26-15	REVISED -									



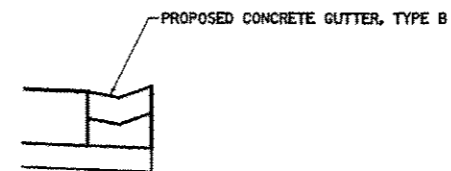
CURB AND GUTTER TRANSITION DETAIL



SECTION C-C

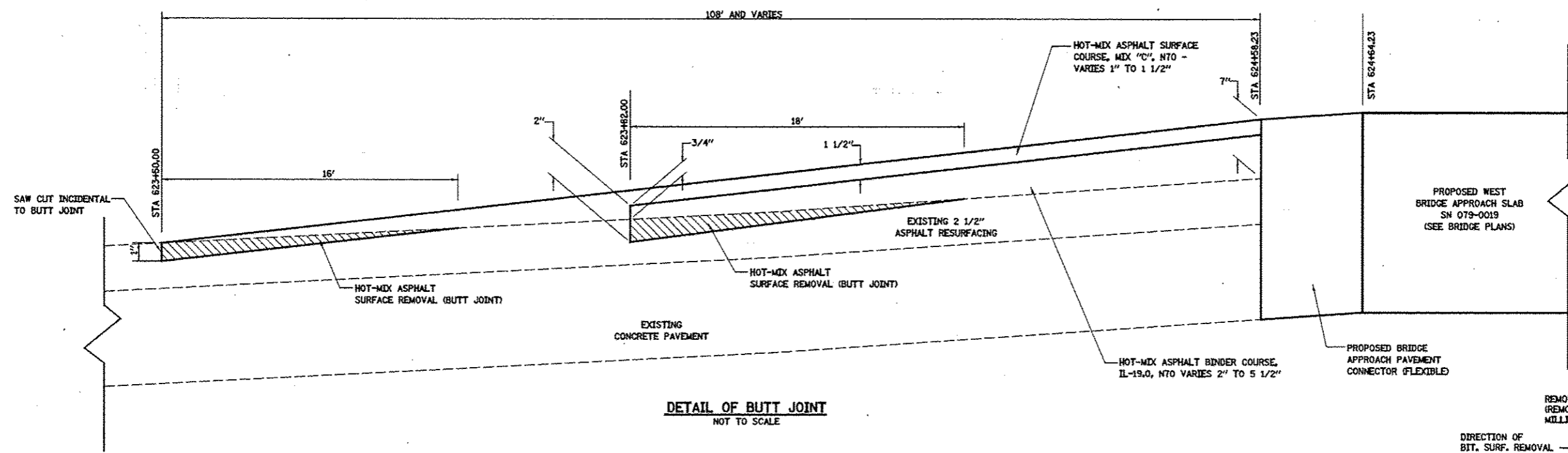


SECTION D-D

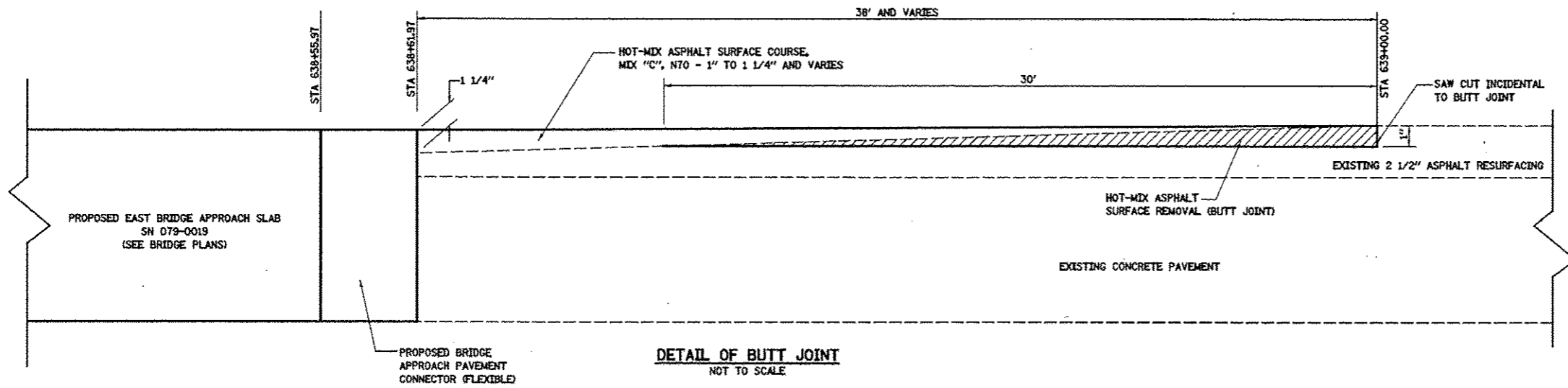


SECTION E-E

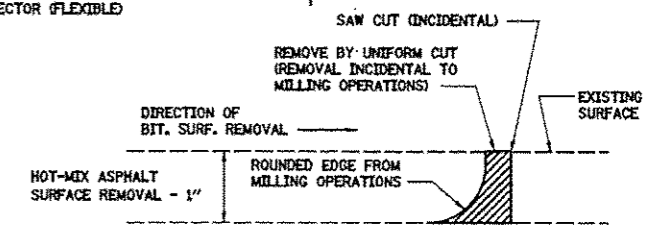
FILE NAME = S:\Projects\60-0027-DIV Route 85 over Kankakee Riv\	USER NAME = bctaj	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MISCELLANEOUS DETAILS			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - PDB	CHECKED - BRM	REVISED -					858	12-B-1	RANDOLPH	90	28
	PLOT SCALE = 48.0000' / 1"	DATE - 01-26-15	REVISED -		SCALE: 1"=20'	SHEET NO. 1 OF 2 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
	PLOT DATE = 2/26/2015	REVISED -	CONTRACT NO. 76H81									



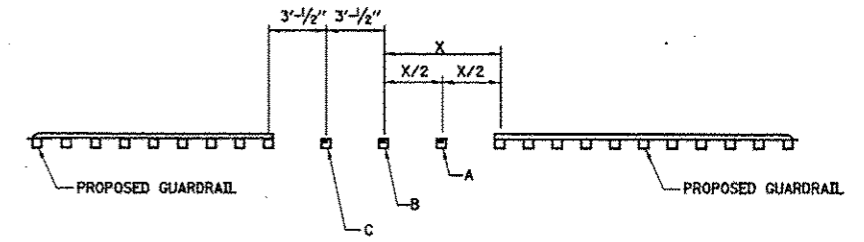
DETAIL OF BUTT JOINT
NOT TO SCALE



DETAIL OF BUTT JOINT
NOT TO SCALE



BITUMINOUS DETAIL AT BUTT JOINTS
NOT TO SCALE



GUARDRAIL SPLICE DETAIL

1. INSTALL POST B HALFWAY BETWEEN POST A AND C.
2. FIELD DRILL RAIL ELEMENT AT B AND A AND ATTACH USING NEW BOLTS, NUTS AND WASHERS. PAINT DRILLED HOLES WITH ZINC-RICH PAINT.
3. INSTALL VARIABLE LENGTH RAIL TO SPAN GAP BETWEEN POST A AND C, USING NEW SPLICE PLATES, BOLTS AND NUTS. ADJUST POST SPACING SO THAT X/2 IS BETWEEN 3'- 1/2" TO 6'- 3"
4. THE COST OF CONNECTING THE PROPOSED GUARDRAIL SHALL BE INCLUDED IN THE COST OF THE ASSOCIATED GUARDRAIL PAY ITEMS.

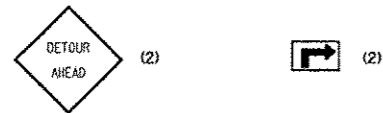
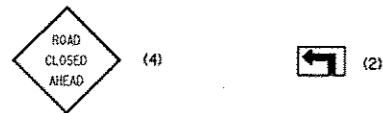
FILE NAME =	USER NAME = bctay	DESIGNED - ESW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MISCELLANEOUS DETAILS			F.A.S. RTE. = 858	SECTION = 12-B-1	COUNTY = RANDOLPH	TOTAL SHEETS = 86	SHEET NO. = 29
PROJECT = 140-0072-DIV Route Rd over Kankakee Riv	CADD SHEET = 08TUM-ent-140-0072	DRAWN - PDB	REVISED -		SCALE = 1"=20'	SHEET NO. 2 OF 2 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 76H81		
	PLOT SCALE = 40.0000' / 1" = 10'	CHECKED - BRM	REVISED -									
	PLOT DATE = 2/26/2015	DATE - 01-26-15	REVISED -									

NOTES

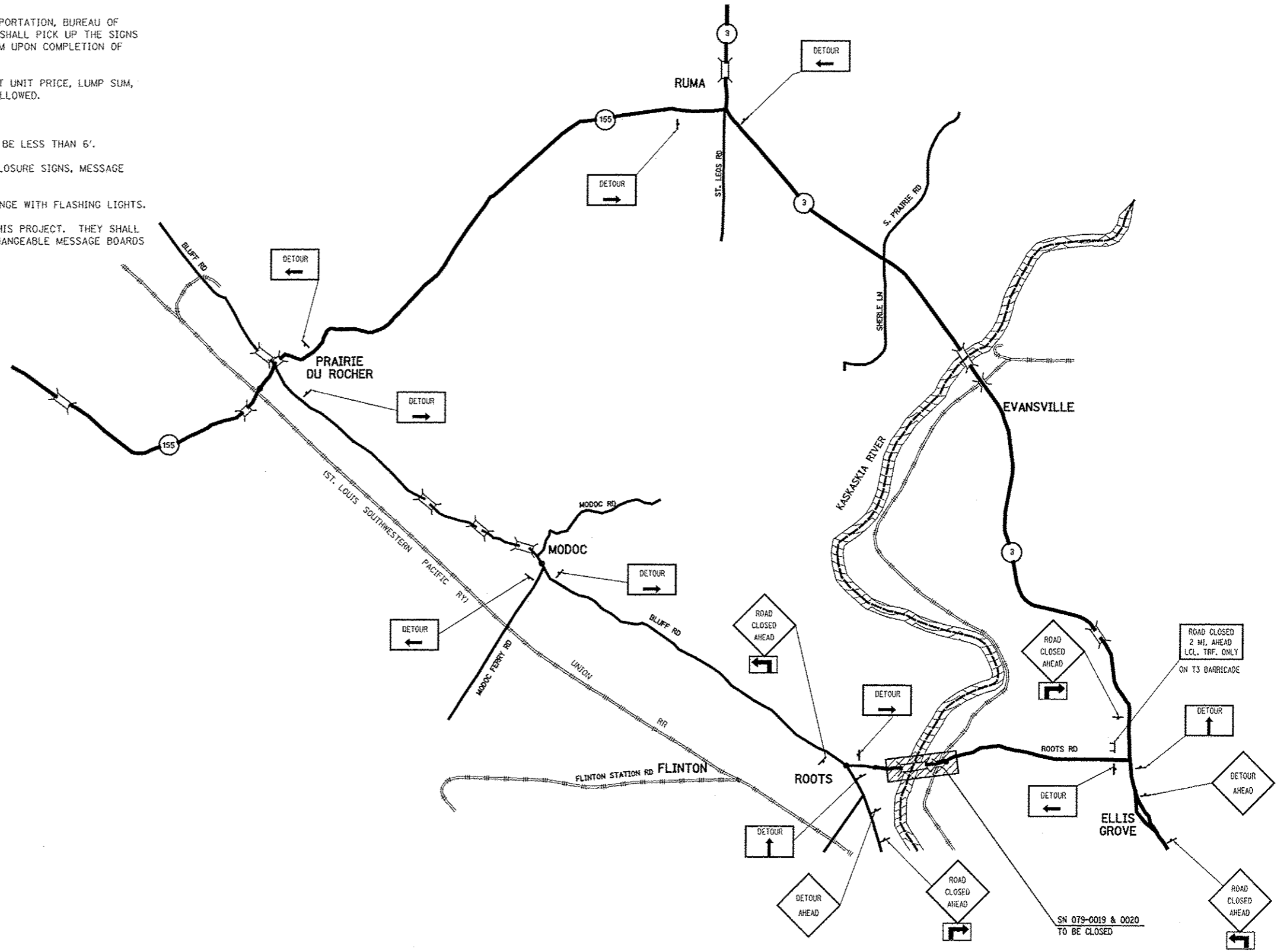
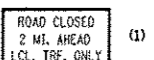
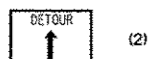
1. DETOUR SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T.
2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE RE/RT. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE T.M. BUILDING IN FAIRVIEW HEIGHTS, AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTACT JEAN SLAPE @ (618) 346-3289.
4. THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR DETOUR SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED.
5. SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
6. THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.
7. CONTRACTOR SHALL FURNISH ADVANCE WARNING SIGNS, ROAD CLOSURE SIGNS, MESSAGE BOARDS, AND TYPE 3 BARRICADES
8. ALL ADVANCE WARNING SIGNS SHALL BE 48" FLUORESCENT ORANGE WITH FLASHING LIGHTS.
9. TWO CHANGEABLE MESSAGE BOARDS SHALL BE REQUIRED FOR THIS PROJECT. THEY SHALL BE PLACED TWO WEEKS PRIOR TO ANY ROAD CLOSURE. THE CHANGEABLE MESSAGE BOARDS SHALL BE PLACED AT THE DIRECTION OF THE ENGINEER.

SIGNS REQUIRED

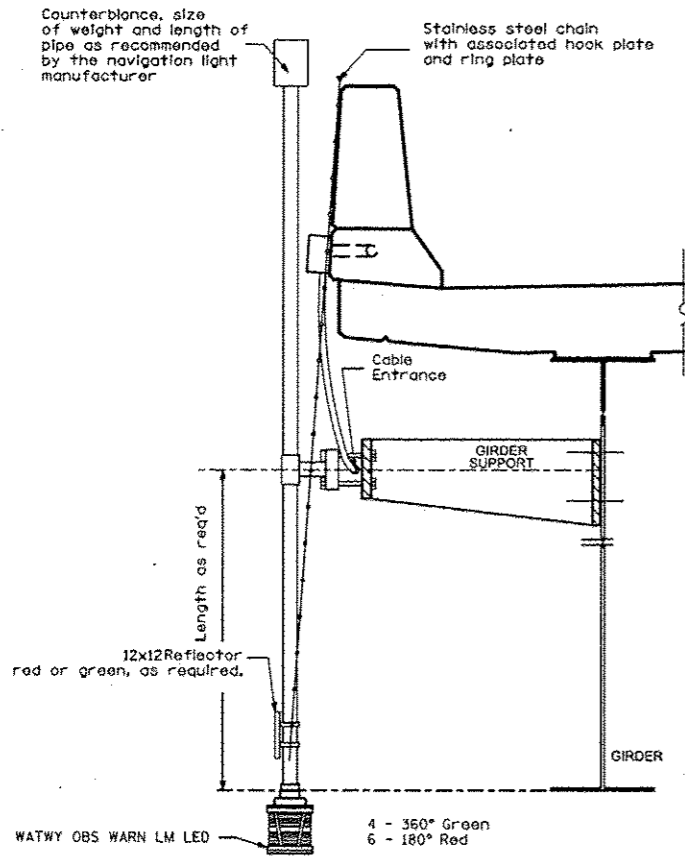
TO BE PROVIDED BY CONTRACTOR



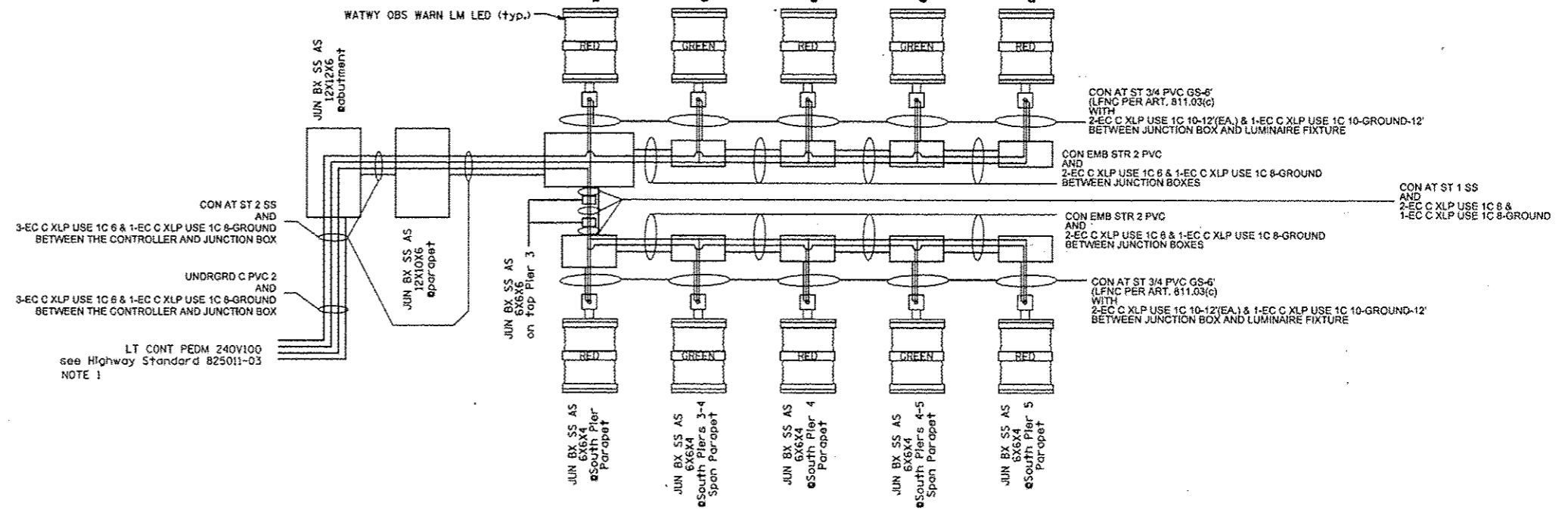
TO BE PROVIDED BY IDOT



FILE NAME * #FILE#	USER NAME = bctsg	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETOUR SIGNING PLAN			F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 30
	PLOT SCALE = 1/8" = 50'	DRAWN -	REVISED -		SCALE: 1" = 50'	SHEET NO. 1 OF 1 SHEETS	STA. _____ TO STA. _____	CONTRACT NO. 76H81				
	PLOT DATE = 5/6/2015	CHECKED -	REVISED -				ILLINOIS FED. AID PROJECT					



NAVIGATION LUMINAIRE



WIRING DIAGRAM FOR NAVIGATION LIGHTING

- NOTES:
 1. BRANCH CIRCUITS WIRING SHALL INCLUDE A NEUTRAL CONDUCTOR FED FROM THE NEUTRAL BAR.

SCHEDULE OF QUANTITIES				
PAY CODE	DESCRIPTION	UNIT	TOTAL	ABBREVIATION
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	35	UNDRGRD C PVC 2
81100220	CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA., PVC COATED GALVANIZED STEEL	FOOT	60	CON AT ST 3/4 PVC GS
81200230	CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	1040	CON EMB STR 2 PVC
81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	9	JUN BX SS AS 6X6X4
81300530	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	2	JUN BX SS AS 12X10X6
81300550	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 6"	EACH	1	JUN BX SS AS 12X12X6
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	3047	EC C XLP USE 1C 6
81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	1270	EC C XLP USE 1C 8
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	360	EC C XLP USE 1C 10
82200605	WATERWAY OBSTRUCTION WARNING LUMINAIRE, LED	EACH	10	WATWY OBS WARN LM LED
82500335	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 100AMP	EACH	1	LT CONT PEDM 240V100
84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	1	REMOV LIGHTING CONTR
84500130	REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1	REMOV LTG CONTR FDN
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	20	REM & RE ELCSBL FR CON
X8110454	CONDUIT ATTACHED TO STRUCTURE, 1" DIA., STAINLESS STEEL	FOOT	90	CON AT ST 1 SS
X8110458	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., STAINLESS STEEL	FOOT	25	CON AT ST 2 SS

Bench Mark: Cut "□" on bridge curb at N.E. corner of Kaskaskia River Bridge S.N. 079-0019 Elev. 420.87

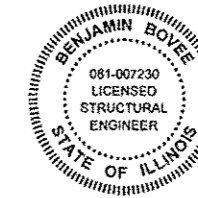
Existing Structure: S.N. 079-0019, originally constructed in 1961 as F.A. Route 182 Sec. 12-D-E-F & P at Station 631+60, using steel girders with 7" concrete deck, nine spans, 1,291'-9" back-to-back of abutments, 33'-8" out-to-out width, vaulted abutments on piles and hammerhead piers with footings on piles. Various repairs and maintenance between 1998 and 2011 including elastomeric bearing replacement, deck drains extended and plugged, beam straightening and deck patching.

Road to be closed and traffic detoured during construction.

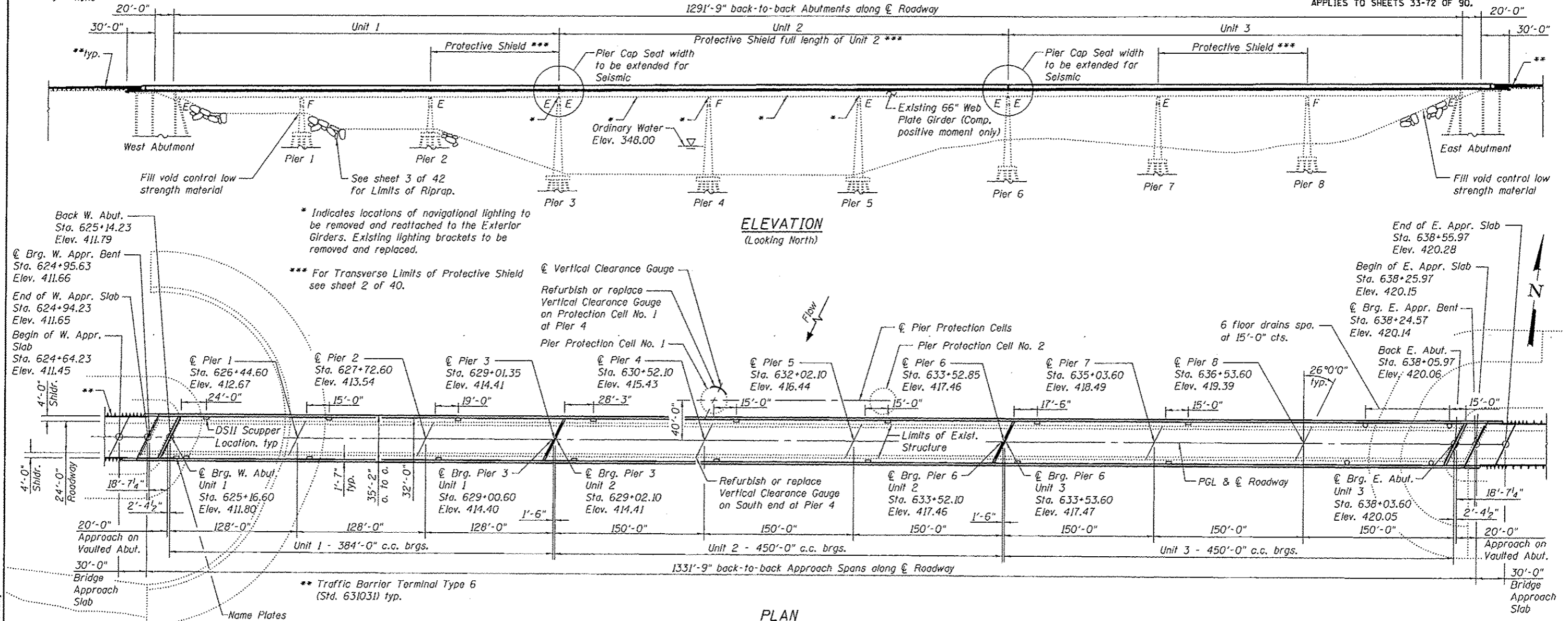
Salvage: None

APPROVED
For Structural Adequacy Only

Dr. Carl Rump
Engineer of Bridges & Structures

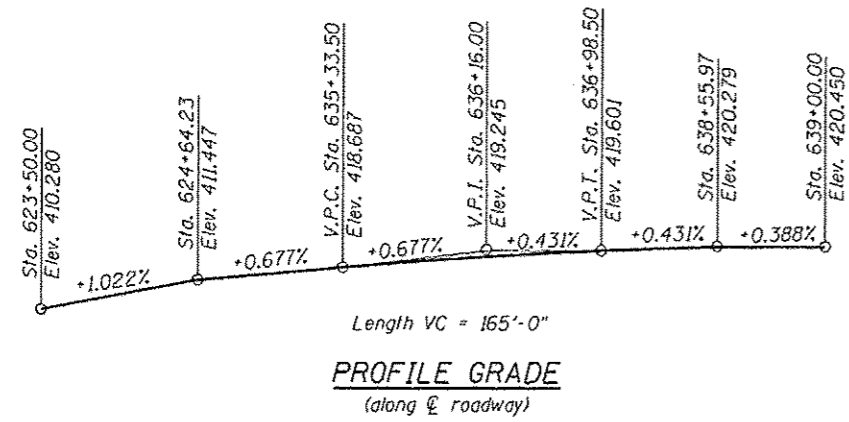


Benjamin Boye 3/18/15
ILLINOIS STRUCTURAL ENGINEER
NO. 081-007230
LICENSE EXPIRES: 11-30-2016
APPLIES TO SHEETS 33-72 OF 90.



ELEVATION
(Looking North)

PLAN



PROFILE GRADE
(along \bar{C} roadway)

LOADING HS20-44

Maximum Uniform load from optional metal stay in place forms = 5 psf.
No future wearing surface allowed.

DESIGN SPECIFICATIONS SUPERSTRUCTURE

2002 AASHTO Standard Specifications 17th Edition
1995 Seismic Retrofitting Manual of Highway Bridges (Reference only)

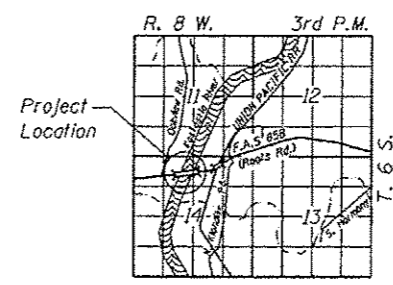
DESIGN STRESSES

EXISTING STRUCTURE
 $f'_c = 3,500$ psi
 $f_y = 40,000$ psi (Reinforcement)
 $f_y = 32,000$ psi (Structural Steel)

NEW CONSTRUCTION
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (AASHTO M270 Grade 50)
 $f_y = 36,000$ psi (AASHTO M270 Grade 36)

SEISMIC DATA

Seismic Performance Category (SPC) = B
Horizontal Bedrock Acceleration (A) = 0.125g
Site Coefficient = 1.5



LOCATION SKETCH

GENERAL PLAN & ELEVATION
ROOTS RD. OVER KASKASKIA RIVER
(PUBLIC WATER)
F.A.S. RTE. 858 - SEC. 12-B-1
RANDOLPH COUNTY
STATION 631+60
STRUCTURE NUMBER 079-0019

S:\Projects\079-0019-0022-ENR\Roads Rd. over Kaskaskia River\Drawings\Final\Plan\079-0019-0022-ENR.dwg

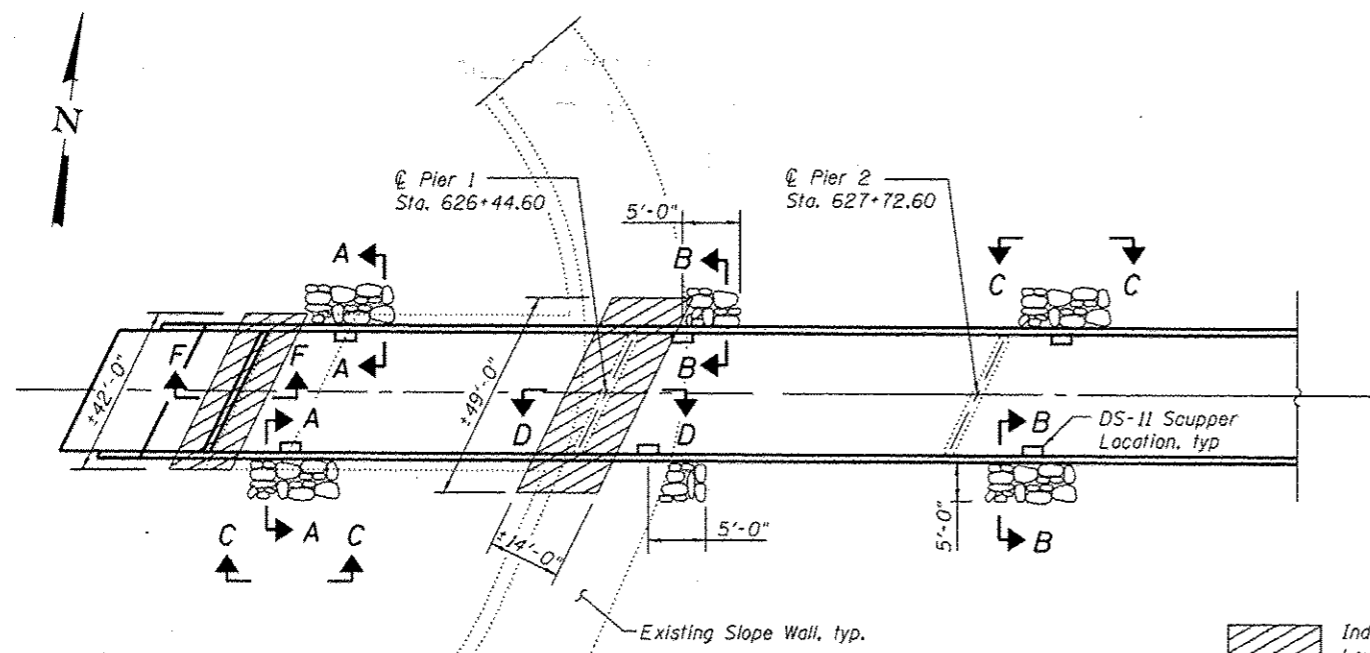


USER NAME = bboyme	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184.001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 2/4/21 PM 3/18/2015	CHECKED - CJF	REVISED -

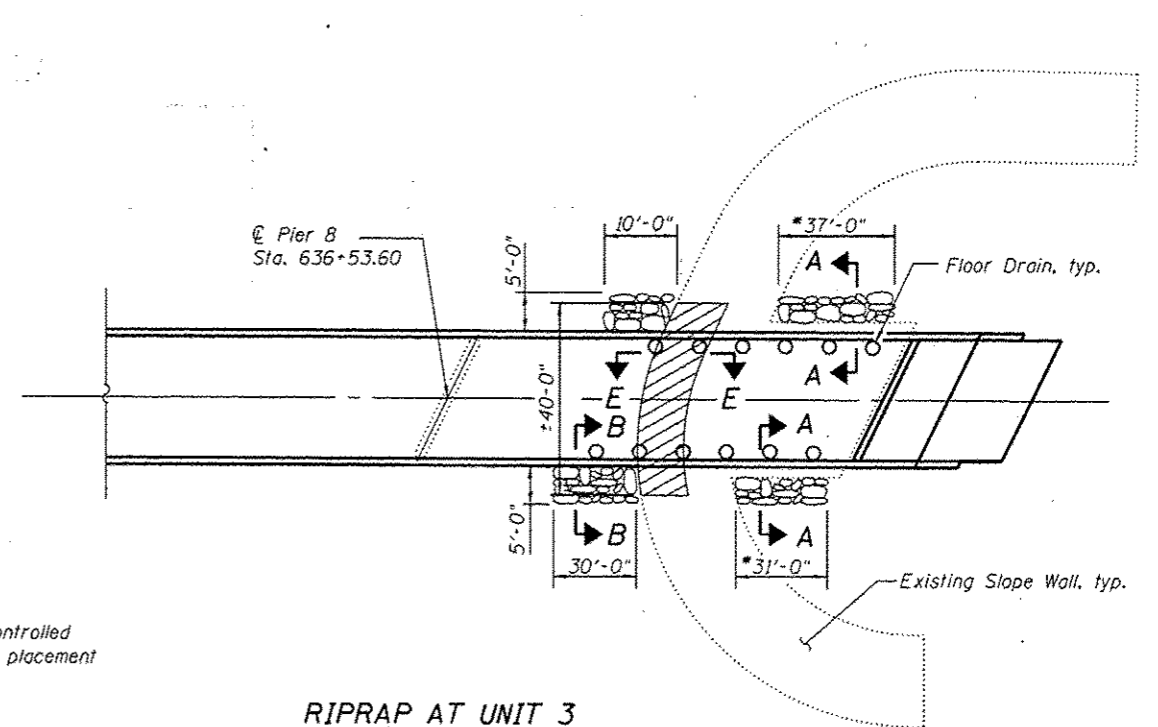
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 33
				CONTRACT NO. 76H81
ILLINOIS FED. AID PROJECT				

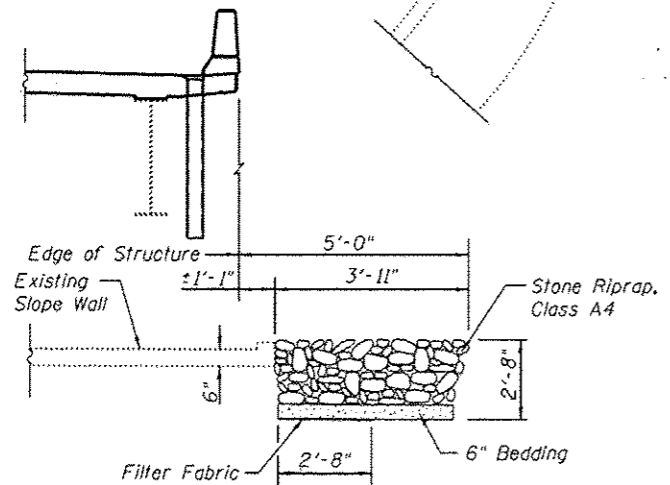


RIPRAP AT UNIT 1

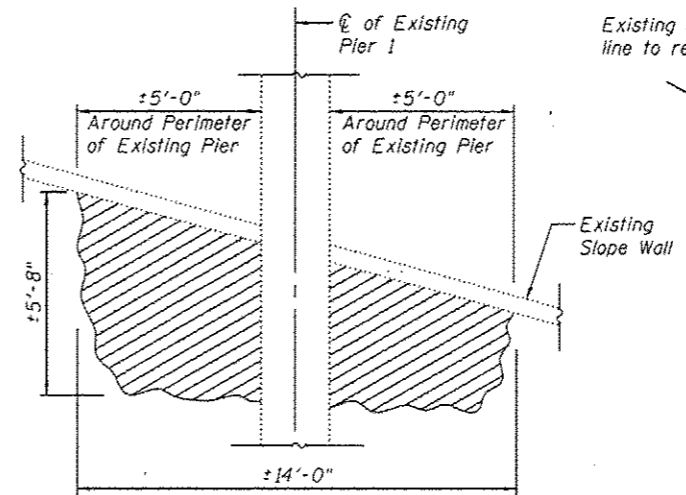


RIPRAP AT UNIT 3

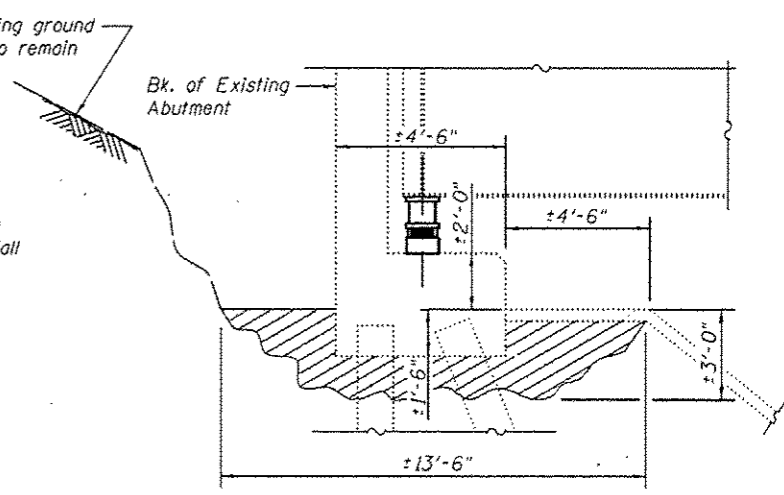
*Extend Riprap to existing Slope Wall



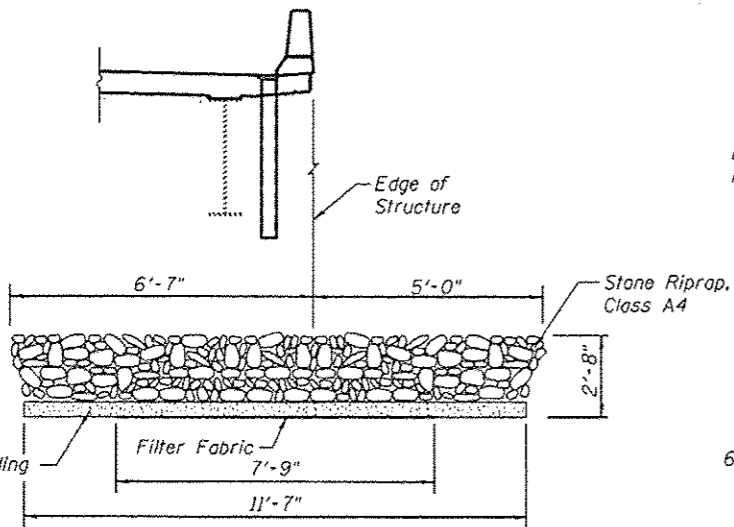
SECTION A-A



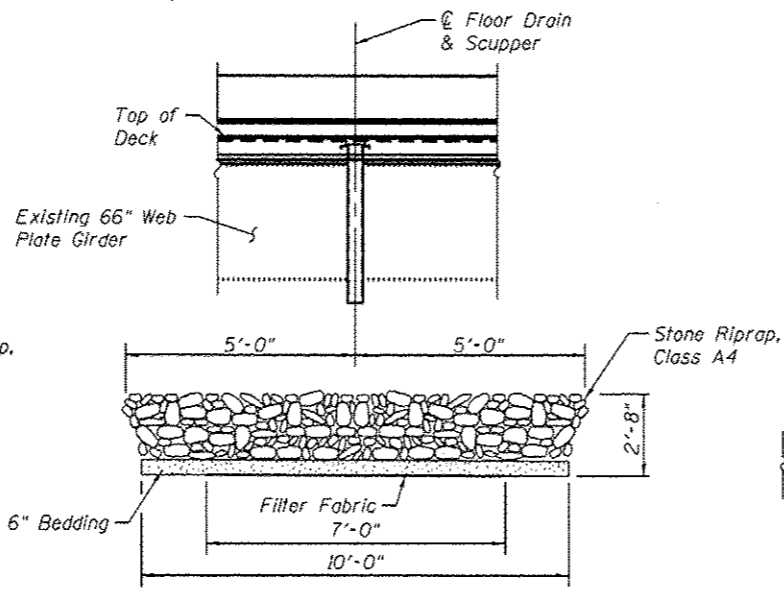
SECTION D-D



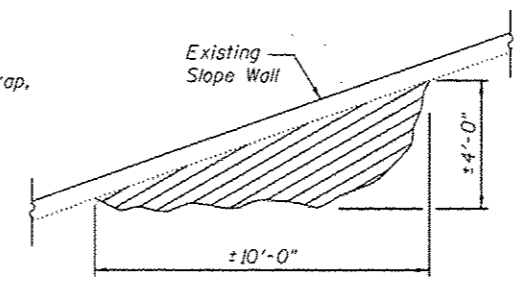
SECTION F-F



SECTION B-B



SECTION C-C
(as shown in Plan View)



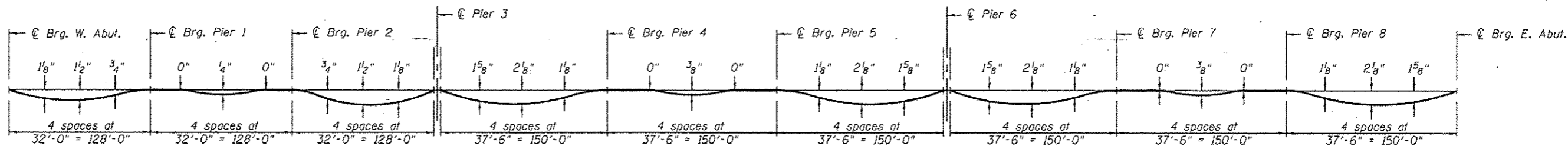
SECTION E-E

BILL OF MATERIAL

Item	Unit	Total
Stone Riprap, Class A4	Sq Yd	116
Filter Fabric	Sq Yd	52
Controlled Low Strength Material	Cu. Yd.	226.4

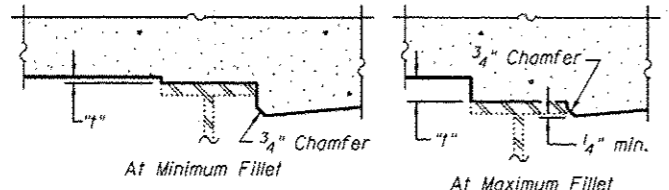
See sheet 1 of 40 for Drainage Layout

S:\Projects\10-022-41R_Roads_Rd_Over_Kaskaskia_River_Bridge_Sign_Fin_Plan_073009\766801-General Information.dwg



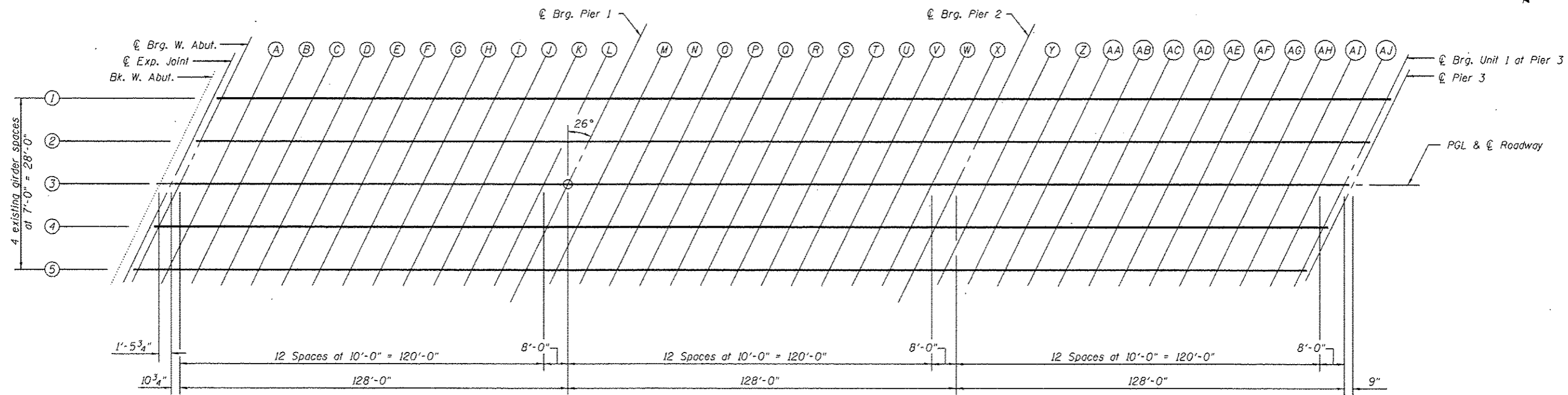
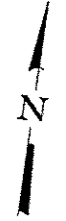
DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" as shown on sheets 6 thru 10 of 40.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheets 6 thru 10 of 40. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 6 thru 10 of 40, minus slab thickness, equals the fillet heights "t" above top flange of beams.

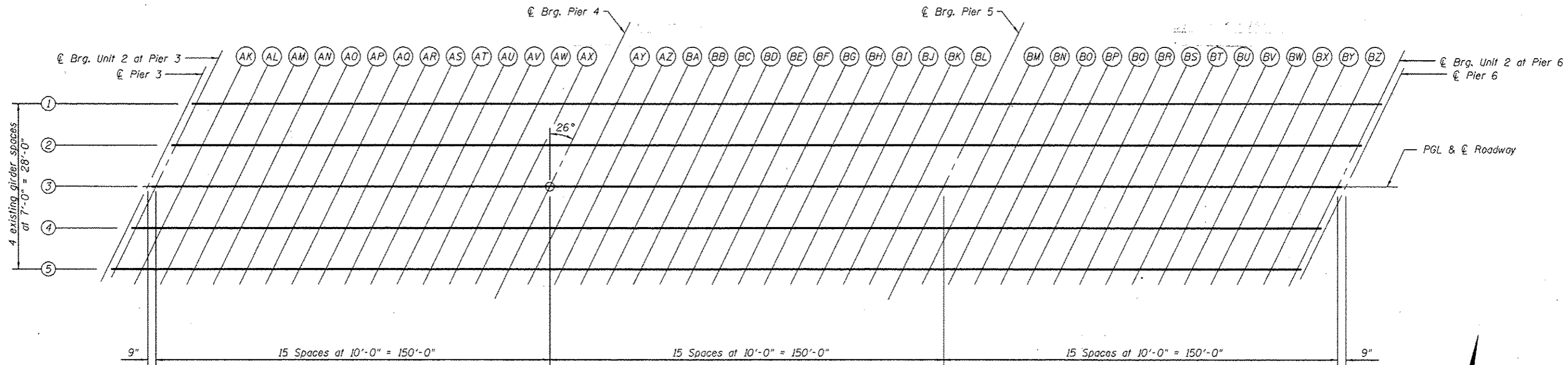
FILLET HEIGHTS



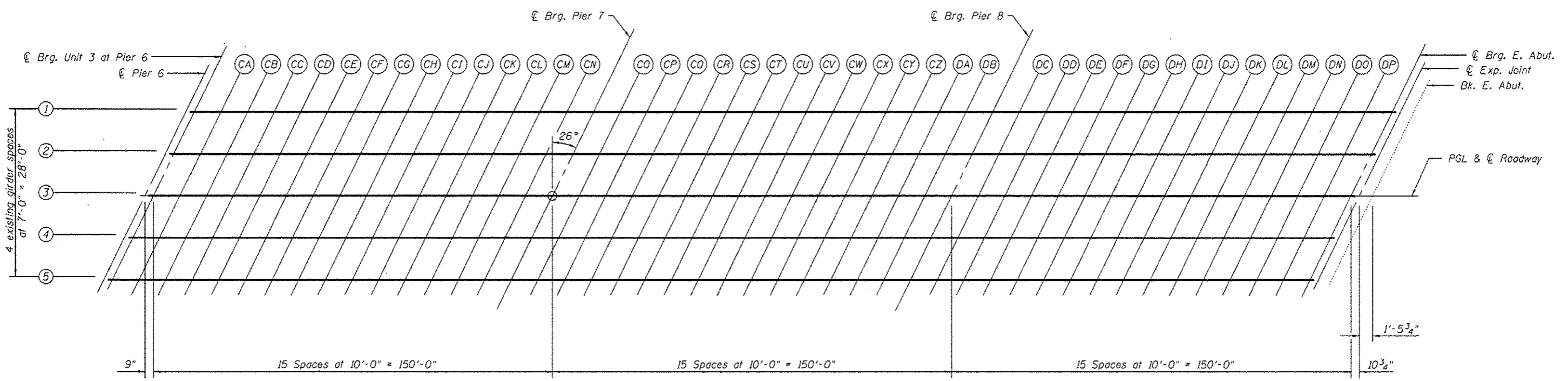
ELEVATION LOCATION PLAN - UNIT 1

C:\Projects\400222-EX- Roads, Rd over Rockcastle River\Bridges\unit1\Plan_Piles\07500976009-004-Top Deck Elevations.dgn

	USER NAME = dbowen	DESIGNED - JD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF SLAB ELEVATIONS STRUCTURE NO. 079-0019	F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 36
	Illinois Design Firm Number 184.001670 PLOT SCALE = PLOT DATE = 8/5/13 AM 2/27/2015	CHECKED - BB DRAWN - WS CHECKED - CJF	REVISED - REVISED - REVISED -			SHEET NO. 4 OF 40 SHEETS	CONTRACT NO. 76H81 ILLINOIS FED. AID PROJECT			



ELEVATION LOCATION PLAN - UNIT 2



ELEVATION LOCATION PLAN - UNIT 3

S:\p\p\140-0022-Elm. Rafts Rd over Kaskaskia River\Bridges\gn\Final_Plans\0790097609-005-Top Deck Elevations.dgn



USER NAME = bbova0	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184.001670	CHECKED - DB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/14 AM 2/27/2015	CHECKED - CJF	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS
STRUCTURE NO. 079-0019**

SHEET NO. 5 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BSB	12-B-1	RANDOLPH	90	37
			CONTRACT NO. 76HB1	
ILLINOIS FED. AID PROJECT				

GIRDER LINE 1 - UNIT 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abutment	625+21.06	-14.00	411.60	411.60
☉ Expansion Joint	625+22.54	-14.00	411.61	411.61
☉ Bearing West Abutment	625+23.43	-14.00	411.62	411.62
A	625+33.43	-14.00	411.69	411.72
B	625+43.43	-14.00	411.76	411.82
C	625+53.43	-14.00	411.82	411.91
D	625+63.43	-14.00	411.89	411.99
E	625+73.43	-14.00	411.96	412.07
F	625+83.43	-14.00	412.03	412.15
G	625+93.43	-14.00	412.09	412.21
H	626+03.43	-14.00	412.16	412.26
I	626+13.43	-14.00	412.23	412.31
J	626+23.43	-14.00	412.30	412.36
K	626+33.43	-14.00	412.36	412.40
L	626+43.43	-14.00	412.43	412.45
☉ Bearing Pier 1	626+51.43	-14.00	412.49	412.49
M	626+61.43	-14.00	412.55	412.56
N	626+71.43	-14.00	412.62	412.62
O	626+81.43	-14.00	412.69	412.69
P	626+91.43	-14.00	412.76	412.77
Q	627+01.43	-14.00	412.83	412.84
R	627+11.43	-14.00	412.89	412.91
S	627+21.43	-14.00	412.96	412.98
T	627+31.43	-14.00	413.03	413.04
U	627+41.43	-14.00	413.10	413.10
V	627+51.43	-14.00	413.16	413.17
W	627+61.43	-14.00	413.23	413.23
X	627+71.43	-14.00	413.30	413.30
☉ Bearing Pier 2	627+79.43	-14.00	413.35	413.35
Y	627+89.43	-14.00	413.42	413.44
Z	627+99.43	-14.00	413.49	413.53
AA	628+09.43	-14.00	413.56	413.62
AB	628+19.43	-14.00	413.62	413.70
AC	628+29.43	-14.00	413.69	413.79
AD	628+39.43	-14.00	413.76	413.87
AE	628+49.43	-14.00	413.83	413.94
AF	628+59.43	-14.00	413.89	414.00
AG	628+69.43	-14.00	413.96	414.06
AH	628+79.43	-14.00	414.03	414.11
AI	628+89.43	-14.00	414.10	414.15
AJ	628+99.43	-14.00	414.17	414.19
☉ Bearing Pier 3	629+07.43	-14.00	414.22	414.22
☉ Pier 3	629+08.18	-14.00	414.22	414.22

GIRDER LINE 2 - UNIT 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abutment	625+17.64	-7.00	411.70	411.70
☉ Expansion Joint	625+19.12	-7.00	411.71	411.71
☉ Bearing West Abutment	625+20.01	-7.00	411.72	411.72
A	625+30.01	-7.00	411.78	411.81
B	625+40.01	-7.00	411.85	411.91
C	625+50.01	-7.00	411.92	412.01
D	625+60.01	-7.00	411.99	412.09
E	625+70.01	-7.00	412.06	412.17
F	625+80.01	-7.00	412.12	412.24
G	625+90.01	-7.00	412.19	412.30
H	626+00.01	-7.00	412.26	412.35
I	626+10.01	-7.00	412.33	412.40
J	626+20.01	-7.00	412.39	412.45
K	626+30.01	-7.00	412.46	412.50
L	626+40.01	-7.00	412.53	412.55
☉ Bearing Pier 1	626+48.01	-7.00	412.58	412.58
M	626+58.01	-7.00	412.65	412.65
N	626+68.01	-7.00	412.72	412.72
O	626+78.01	-7.00	412.79	412.79
P	626+88.01	-7.00	412.85	412.86
Q	626+98.01	-7.00	412.92	412.94
R	627+08.01	-7.00	412.99	413.01
S	627+18.01	-7.00	413.06	413.08
T	627+28.01	-7.00	413.12	413.14
U	627+38.01	-7.00	413.19	413.20
V	627+48.01	-7.00	413.26	413.26
W	627+58.01	-7.00	413.33	413.33
X	627+68.01	-7.00	413.40	413.40
☉ Bearing Pier 2	627+76.01	-7.00	413.45	413.45
Y	627+86.01	-7.00	413.52	413.54
Z	627+96.01	-7.00	413.59	413.63
AA	628+06.01	-7.00	413.65	413.72
AB	628+16.01	-7.00	413.72	413.80
AC	628+26.01	-7.00	413.79	413.89
AD	628+36.01	-7.00	413.86	413.97
AE	628+46.01	-7.00	413.92	414.04
AF	628+56.01	-7.00	413.99	414.10
AG	628+66.01	-7.00	414.06	414.16
AH	628+76.01	-7.00	414.13	414.21
AI	628+86.01	-7.00	414.19	414.25
AJ	628+96.01	-7.00	414.26	414.29
☉ Bearing Pier 3	629+04.01	-7.00	414.32	414.32
☉ Pier 3	629+04.76	-7.00	414.32	414.32

☉, PGL & GIRDER LINE 3 - UNIT 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abutment	625+14.23	0.00	411.79	411.79
☉ Expansion Joint	625+15.71	0.00	411.80	411.80
☉ Bearing West Abutment	625+16.60	0.00	411.80	411.80
A	625+26.60	0.00	411.87	411.90
B	625+36.60	0.00	411.94	412.00
C	625+46.60	0.00	412.01	412.10
D	625+56.60	0.00	412.07	412.18
E	625+66.60	0.00	412.14	412.25
F	625+76.60	0.00	412.21	412.33
G	625+86.60	0.00	412.28	412.39
H	625+96.60	0.00	412.34	412.44
I	626+06.60	0.00	412.41	412.49
J	626+16.60	0.00	412.48	412.54
K	626+26.60	0.00	412.55	412.59
L	626+36.60	0.00	412.62	412.63
☉ Bearing Pier 1	626+44.60	0.00	412.67	412.67
M	626+54.60	0.00	412.74	412.74
N	626+64.60	0.00	412.81	412.81
O	626+74.60	0.00	412.87	412.88
P	626+84.60	0.00	412.94	412.95
Q	626+94.60	0.00	413.01	413.02
R	627+04.60	0.00	413.08	413.10
S	627+14.60	0.00	413.14	413.16
T	627+24.60	0.00	413.21	413.22
U	627+34.60	0.00	413.28	413.29
V	627+44.60	0.00	413.35	413.35
W	627+54.60	0.00	413.41	413.42
X	627+64.60	0.00	413.48	413.48
☉ Bearing Pier 2	627+72.60	0.00	413.54	413.54
Y	627+82.60	0.00	413.60	413.62
Z	627+92.60	0.00	413.67	413.71
AA	628+02.60	0.00	413.74	413.80
AB	628+12.60	0.00	413.81	413.89
AC	628+22.60	0.00	413.87	413.97
AD	628+32.60	0.00	413.94	414.06
AE	628+42.60	0.00	414.01	414.13
AF	628+52.60	0.00	414.08	414.19
AG	628+62.60	0.00	414.15	414.25
AH	628+72.60	0.00	414.21	414.30
AI	628+82.60	0.00	414.28	414.34
AJ	628+92.60	0.00	414.35	414.37
☉ Bearing Pier 3	629+00.60	0.00	414.40	414.40
☉ Pier 3	629+01.35	0.00	414.41	414.41

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USER NAME = dbvoo	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184.001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/25/14 AM 2/27/2015	CHECKED - CJF	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 079-0019
SHEET NO. 6 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 38
CONTRACT NO. 76H81			ILLINOIS FED. AID PROJECT	

GIRDER LINE 4 - UNIT 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abutment	625+10.82	7.00	411.65	411.65
☉ Expansion Joint	625+12.30	7.00	411.66	411.66
☉ Bearing West Abutment	625+13.19	7.00	411.67	411.67
A	625+23.19	7.00	411.74	411.77
B	625+33.19	7.00	411.81	411.87
C	625+43.19	7.00	411.87	411.96
D	625+53.19	7.00	411.94	412.04
E	625+63.19	7.00	412.01	412.12
F	625+73.19	7.00	412.08	412.20
G	625+83.19	7.00	412.14	412.26
H	625+93.19	7.00	412.21	412.31
I	626+03.19	7.00	412.28	412.36
J	626+13.19	7.00	412.35	412.41
K	626+23.19	7.00	412.42	412.45
L	626+33.19	7.00	412.48	412.50
☉ Bearing Pier 1	626+41.19	7.00	412.54	412.54
M	626+51.19	7.00	412.60	412.61
N	626+61.19	7.00	412.67	412.67
O	626+71.19	7.00	412.74	412.74
P	626+81.19	7.00	412.81	412.82
Q	626+91.19	7.00	412.88	412.89
R	627+01.19	7.00	412.94	412.96
S	627+11.19	7.00	413.01	413.03
T	627+21.19	7.00	413.08	413.09
U	627+31.19	7.00	413.15	413.15
V	627+41.19	7.00	413.21	413.22
W	627+51.19	7.00	413.28	413.28
X	627+61.19	7.00	413.35	413.35
☉ Bearing Pier 2	627+69.19	7.00	413.40	413.40
Y	627+79.19	7.00	413.47	413.49
Z	627+89.19	7.00	413.54	413.58
AA	627+99.19	7.00	413.61	413.67
AB	628+09.19	7.00	413.67	413.76
AC	628+19.19	7.00	413.74	413.84
AD	628+29.19	7.00	413.81	413.93
AE	628+39.19	7.00	413.88	414.00
AF	628+49.19	7.00	413.95	414.05
AG	628+59.19	7.00	414.01	414.11
AH	628+69.19	7.00	414.08	414.17
AI	628+79.19	7.00	414.15	414.20
AJ	628+89.19	7.00	414.22	414.24
☉ Bearing Pier 3	628+97.19	7.00	414.27	414.27
☉ Pier 3	628+97.94	7.00	414.28	414.28

GIRDER LINE 5 - UNIT 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abutment	625+07.4	14.00	411.51	411.51
☉ Expansion Joint	625+08.88	14.00	411.52	411.52
☉ Bearing West Abutment	625+09.77	14.00	411.53	411.53
A	625+19.77	14.00	411.60	411.63
B	625+29.77	14.00	411.66	411.72
C	625+39.77	14.00	411.73	411.82
D	625+49.77	14.00	411.80	411.90
E	625+59.77	14.00	411.87	411.98
F	625+69.77	14.00	411.93	412.05
G	625+79.77	14.00	412.00	412.11
H	625+89.77	14.00	412.07	412.16
I	625+99.77	14.00	412.14	412.21
J	626+09.77	14.00	412.20	412.26
K	626+19.77	14.00	412.27	412.31
L	626+29.77	14.00	412.34	412.36
☉ Bearing Pier 1	626+37.77	14.00	412.39	412.39
M	626+47.77	14.00	412.46	412.46
N	626+57.77	14.00	412.53	412.53
O	626+67.77	14.00	412.60	412.60
P	626+77.77	14.00	412.67	412.67
Q	626+87.77	14.00	412.73	412.75
R	626+97.77	14.00	412.80	412.82
S	627+07.77	14.00	412.87	412.89
T	627+17.77	14.00	412.94	412.95
U	627+27.77	14.00	413.00	413.01
V	627+37.77	14.00	413.07	413.07
W	627+47.77	14.00	413.14	413.14
X	627+57.77	14.00	413.21	413.21
☉ Bearing Pier 2	627+65.77	14.00	413.26	413.26
Y	627+75.77	14.00	413.33	413.35
Z	627+85.77	14.00	413.40	413.44
AA	627+95.77	14.00	413.46	413.53
AB	628+05.77	14.00	413.53	413.61
AC	628+15.77	14.00	413.60	413.70
AD	628+25.77	14.00	413.67	413.78
AE	628+35.77	14.00	413.73	413.85
AF	628+45.77	14.00	413.80	413.91
AG	628+55.77	14.00	413.87	413.97
AH	628+65.77	14.00	413.94	414.02
AI	628+75.77	14.00	414.01	414.06
AJ	628+85.77	14.00	414.07	414.10
☉ Bearing Pier 3	628+93.77	14.00	414.13	414.13
☉ Pier 3	628+94.52	14.00	414.13	414.13

GIRDER LINE 1 - UNIT 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 3	629+08.18	-14.00	414.22	414.22
☉ Bearing Pier 3	629+08.93	-14.00	414.23	414.23
AK	629+18.93	-14.00	414.30	414.33
AL	629+28.93	-14.00	414.37	414.44
AM	629+38.93	-14.00	414.43	414.54
AN	629+48.93	-14.00	414.50	414.64
AO	629+58.93	-14.00	414.57	414.72
AP	629+68.93	-14.00	414.64	414.79
AQ	629+78.93	-14.00	414.70	414.87
AR	629+88.93	-14.00	414.77	414.93
AS	629+98.93	-14.00	414.84	414.98
AT	630+08.93	-14.00	414.91	415.03
AU	630+18.93	-14.00	414.97	415.07
AV	630+28.93	-14.00	415.04	415.12
AW	630+38.93	-14.00	415.11	415.16
AX	630+48.93	-14.00	415.18	415.20
☉ Bearing Pier 4	630+58.93	-14.00	415.25	415.25
AY	630+68.93	-14.00	415.31	415.31
AZ	630+78.93	-14.00	415.38	415.38
BA	630+88.93	-14.00	415.45	415.45
BB	630+98.93	-14.00	415.52	415.52
BC	631+08.93	-14.00	415.58	415.59
BD	631+18.93	-14.00	415.65	415.67
BE	631+28.93	-14.00	415.72	415.74
BF	631+38.93	-14.00	415.79	415.81
BG	631+48.93	-14.00	415.85	415.87
BH	631+58.93	-14.00	415.92	415.93
BI	631+68.93	-14.00	415.99	415.99
BJ	631+78.93	-14.00	416.06	416.06
BK	631+88.93	-14.00	416.13	416.13
BL	631+98.93	-14.00	416.19	416.19
☉ Bearing Pier 5	632+08.93	-14.00	416.26	416.26
BM	632+18.93	-14.00	416.33	416.35
BN	632+28.93	-14.00	416.40	416.45
BO	632+38.93	-14.00	416.46	416.54
BP	632+48.93	-14.00	416.53	416.63
BQ	632+58.93	-14.00	416.60	416.72
BR	632+68.93	-14.00	416.67	416.81
BS	632+78.93	-14.00	416.73	416.90
BT	632+88.93	-14.00	416.80	416.97
BU	632+98.93	-14.00	416.87	417.03
BV	633+08.93	-14.00	416.94	417.09
BW	633+18.93	-14.00	417.01	417.14
BX	633+28.93	-14.00	417.07	417.18
BY	633+38.93	-14.00	417.14	417.21
BZ	633+48.93	-14.00	417.21	417.25
☉ Bearing Pier 6	633+58.93	-14.00	417.28	417.28
☉ Pier 6	633+59.68	-14.00	417.28	417.28

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USER NAME = bbovoo	DESIGNED - JD	REVISED -
Illinois Design Firm Number 1B4.001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/25/2015	CHECKED - CJF	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 079-0019

SHEET NO. 7 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 39
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

GIRDER LINE 2 - UNIT 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 3	629+04.76	-7.00	414.32	414.32
☉ Bearing Pier 3	629+05.51	-7.00	414.33	414.33
AK	629+15.51	-7.00	414.39	414.43
AL	629+25.51	-7.00	414.46	414.53
AM	629+35.51	-7.00	414.53	414.64
AN	629+45.51	-7.00	414.60	414.74
AO	629+55.51	-7.00	414.67	414.81
AP	629+65.51	-7.00	414.73	414.89
AQ	629+75.51	-7.00	414.80	414.97
AR	629+85.51	-7.00	414.87	415.03
AS	629+95.51	-7.00	414.94	415.08
AT	630+05.51	-7.00	415.00	415.12
AU	630+15.51	-7.00	415.07	415.17
AV	630+25.51	-7.00	415.14	415.21
AW	630+35.51	-7.00	415.21	415.26
AX	630+45.51	-7.00	415.27	415.30
☉ Bearing Pier 4	630+55.51	-7.00	415.34	415.34
AY	630+65.51	-7.00	415.41	415.41
AZ	630+75.51	-7.00	415.48	415.48
BA	630+85.51	-7.00	415.55	415.55
BB	630+95.51	-7.00	415.61	415.62
BC	631+05.51	-7.00	415.68	415.69
BD	631+15.51	-7.00	415.75	415.77
BE	631+25.51	-7.00	415.82	415.84
BF	631+35.51	-7.00	415.88	415.91
BG	631+45.51	-7.00	415.95	415.97
BH	631+55.51	-7.00	416.02	416.03
BI	631+65.51	-7.00	416.09	416.09
BJ	631+75.51	-7.00	416.15	416.16
BK	631+85.51	-7.00	416.22	416.22
BL	631+95.51	-7.00	416.29	416.29
☉ Bearing Pier 5	632+05.51	-7.00	416.36	416.36
BM	632+15.51	-7.00	416.43	416.45
BN	632+25.51	-7.00	416.49	416.54
BO	632+35.51	-7.00	416.56	416.64
BP	632+45.51	-7.00	416.63	416.73
BQ	632+55.51	-7.00	416.70	416.82
BR	632+65.51	-7.00	416.76	416.91
BS	632+75.51	-7.00	416.83	416.99
BT	632+85.51	-7.00	416.90	417.07
BU	632+95.51	-7.00	416.97	417.13
BV	633+05.51	-7.00	417.03	417.18
BW	633+15.51	-7.00	417.10	417.24
BX	633+25.51	-7.00	417.17	417.28
BY	633+35.51	-7.00	417.24	417.31
BZ	633+45.51	-7.00	417.31	417.34
☉ Bearing Pier 6	633+55.51	-7.00	417.37	417.37
☉ Pier 6	633+56.26	-7.00	417.38	417.38

☉ PGL & GIRDER LINE 3 - UNIT 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 3	629+01.35	0.00	414.41	414.41
☉ Bearing Pier 3	629+02.10	0.00	414.41	414.41
AK	629+12.10	0.00	414.48	414.52
AL	629+22.10	0.00	414.55	414.62
AM	629+32.10	0.00	414.62	414.73
AN	629+42.10	0.00	414.68	414.82
AO	629+52.10	0.00	414.75	414.90
AP	629+62.10	0.00	414.82	414.98
AQ	629+72.10	0.00	414.89	415.05
AR	629+82.10	0.00	414.95	415.12
AS	629+92.10	0.00	415.02	415.16
AT	630+02.10	0.00	415.09	415.21
AU	630+12.10	0.00	415.16	415.26
AV	630+22.10	0.00	415.23	415.30
AW	630+32.10	0.00	415.29	415.34
AX	630+42.10	0.00	415.36	415.39
☉ Bearing Pier 4	630+52.10	0.00	415.43	415.43
AY	630+62.10	0.00	415.50	415.50
AZ	630+72.10	0.00	415.56	415.56
BA	630+82.10	0.00	415.63	415.63
BB	630+92.10	0.00	415.70	415.70
BC	631+02.10	0.00	415.77	415.78
BD	631+12.10	0.00	415.83	415.85
BE	631+22.10	0.00	415.90	415.93
BF	631+32.10	0.00	415.97	416.00
BG	631+42.10	0.00	416.04	416.06
BH	631+52.10	0.00	416.11	416.12
BI	631+62.10	0.00	416.17	416.18
BJ	631+72.10	0.00	416.24	416.24
BK	631+82.10	0.00	416.31	416.31
BL	631+92.10	0.00	416.38	416.38
☉ Bearing Pier 5	632+02.10	0.00	416.44	416.44
BM	632+12.10	0.00	416.51	416.54
BN	632+22.10	0.00	416.58	416.63
BO	632+32.10	0.00	416.65	416.72
BP	632+42.10	0.00	416.71	416.81
BQ	632+52.10	0.00	416.78	416.90
BR	632+62.10	0.00	416.85	416.99
BS	632+72.10	0.00	416.92	417.08
BT	632+82.10	0.00	416.99	417.15
BU	632+92.10	0.00	417.05	417.21
BV	633+02.10	0.00	417.12	417.27
BW	633+12.10	0.00	417.19	417.33
BX	633+22.10	0.00	417.26	417.37
BY	633+32.10	0.00	417.32	417.40
BZ	633+42.10	0.00	417.39	417.43
☉ Bearing Pier 6	633+52.10	0.00	417.46	417.46
☉ Pier 6	633+52.85	0.00	417.46	417.46

GIRDER LINE 4 - UNIT 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 3	628+97.94	7.00	414.28	414.28
☉ Bearing Pier 3	628+98.69	7.00	414.28	414.28
AK	629+08.69	7.00	414.35	414.38
AL	629+18.69	7.00	414.42	414.49
AM	629+28.69	7.00	414.48	414.59
AN	629+38.69	7.00	414.55	414.69
AO	629+48.69	7.00	414.62	414.77
AP	629+58.69	7.00	414.69	414.84
AQ	629+68.69	7.00	414.75	414.92
AR	629+78.69	7.00	414.82	414.98
AS	629+88.69	7.00	414.89	415.03
AT	629+98.69	7.00	414.96	415.08
AU	630+08.69	7.00	415.03	415.12
AV	630+18.69	7.00	415.09	415.17
AW	630+28.69	7.00	415.16	415.21
AX	630+38.69	7.00	415.23	415.25
☉ Bearing Pier 4	630+48.69	7.00	415.30	415.30
AY	630+58.69	7.00	415.36	415.36
AZ	630+68.69	7.00	415.43	415.43
BA	630+78.69	7.00	415.50	415.50
BB	630+88.69	7.00	415.57	415.57
BC	630+98.69	7.00	415.63	415.65
BD	631+08.69	7.00	415.70	415.72
BE	631+18.69	7.00	415.77	415.80
BF	631+28.69	7.00	415.84	415.86
BG	631+38.69	7.00	415.91	415.92
BH	631+48.69	7.00	415.97	415.98
BI	631+58.69	7.00	416.04	416.04
BJ	631+68.69	7.00	416.11	416.11
BK	631+78.69	7.00	416.18	416.18
BL	631+88.69	7.00	416.24	416.24
☉ Bearing Pier 5	631+98.69	7.00	416.31	416.31
BM	632+08.69	7.00	416.38	416.40
BN	632+18.69	7.00	416.45	416.50
BO	632+28.69	7.00	416.51	416.59
BP	632+38.69	7.00	416.58	416.68
BQ	632+48.69	7.00	416.65	416.77
BR	632+58.69	7.00	416.72	416.86
BS	632+68.69	7.00	416.79	416.95
BT	632+78.69	7.00	416.85	417.02
BU	632+88.69	7.00	416.92	417.08
BV	632+98.69	7.00	416.99	417.14
BW	633+08.69	7.00	417.06	417.20
BX	633+18.69	7.00	417.12	417.23
BY	633+28.69	7.00	417.19	417.26
BZ	633+38.69	7.00	417.26	417.30
☉ Bearing Pier 6	633+48.69	7.00	417.33	417.33
☉ Pier 6	633+49.44	7.00	417.33	417.33

S:\p7\job\1100022-ELR Roads Rd over Kaskaskia River Bridge\eght\Final_Plan\079009-76409-003\Fig Desk Elevations.dgn

<p>LOCHMULLER GROUP 1100 N. WASHINGTON ST., SUITE 100 TROY, ILLINOIS 61864 PHONE 618.667.1100</p>	USER NAME = ddoovno	DESIGNED = JD	REVISED =	<p align="center">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p>	<p align="center">TOP OF SLAB ELEVATIONS STRUCTURE NO. 079-0019</p>	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	Illinois Design Firm Number 104.001670	CHECKED = BB	REVISED =			858	12-B-1	RANDOLPH	90	40
	PLOT SCALE =	DRAWN = WS	REVISED =			CONTRACT NO. 76HBI				
PLOT DATE = 01/25/15 AM 2/27/2015	CHECKED = CJF	REVISED =	SHEET NO. 8 OF 40 SHEETS			[ILLINOIS] FED. AID PROJECT				

☉ PGL & GIRDER LINE 3 - UNIT 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 6	633+52.85	0.00	417.46	417.46
☉ Bearing Pier 6	633+53.60	0.00	417.47	417.47
CA	633+63.60	0.00	417.54	417.57
CB	633+73.60	0.00	417.60	417.68
CC	633+83.60	0.00	417.67	417.78
CD	633+93.60	0.00	417.74	417.88
CE	634+03.60	0.00	417.81	417.96
CF	634+13.60	0.00	417.88	418.03
CG	634+23.60	0.00	417.94	418.11
CH	634+33.60	0.00	418.01	418.17
CI	634+43.60	0.00	418.08	418.22
CJ	634+53.60	0.00	418.15	418.27
CK	634+63.60	0.00	418.21	418.31
CL	634+73.60	0.00	418.28	418.36
CM	634+83.60	0.00	418.35	418.40
CN	634+93.60	0.00	418.42	418.44
☉ Bearing Pier 7	635+03.60	0.00	418.49	418.49
CO	635+13.60	0.00	418.55	418.55
CP	635+23.60	0.00	418.62	418.62
CQ	635+33.60	0.00	418.69	418.69
CR	635+43.60	0.00	418.76	418.76
CS	635+53.60	0.00	418.82	418.83
CT	635+63.60	0.00	418.88	418.90
CU	635+73.60	0.00	418.95	418.97
CV	635+83.60	0.00	419.01	419.03
CW	635+93.60	0.00	419.07	419.09
CX	636+03.60	0.00	419.13	419.14
CY	636+13.60	0.00	419.18	419.19
CZ	636+23.60	0.00	419.24	419.24
DA	636+33.60	0.00	419.29	419.29
DB	636+43.60	0.00	419.34	419.34
☉ Bearing Pier 8	636+53.60	0.00	419.39	419.39
DC	636+63.60	0.00	419.44	419.47
DD	636+73.60	0.00	419.49	419.54
DE	636+83.60	0.00	419.54	419.61
DF	636+93.60	0.00	419.58	419.68
DG	637+03.60	0.00	419.62	419.74
DH	637+13.60	0.00	419.67	419.81
DI	637+23.60	0.00	419.71	419.87
DJ	637+33.60	0.00	419.75	419.92
DK	637+43.60	0.00	419.80	419.95
DL	637+53.60	0.00	419.84	419.99
DM	637+63.60	0.00	419.88	420.02
DN	637+73.60	0.00	419.93	420.03
DO	637+83.60	0.00	419.97	420.04
DP	637+93.60	0.00	420.01	420.05
☉ Bearing East Abutment	638+03.60	0.00	420.05	420.05
☉ Expansion Joint	638+04.49	0.00	420.06	420.06
Back of East Abutment	638+05.97	0.00	420.06	420.06

GIRDER LINE 4 - UNIT 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 6	633+49.44	7.00	417.33	417.33
☉ Bearing Pier 6	633+50.19	7.00	417.34	417.34
CA	633+60.19	7.00	417.40	417.44
CB	633+70.19	7.00	417.47	417.55
CC	633+80.19	7.00	417.54	417.65
CD	633+90.19	7.00	417.61	417.75
CE	634+00.19	7.00	417.68	417.82
CF	634+10.19	7.00	417.74	417.90
CG	634+20.19	7.00	417.81	417.98
CH	634+30.19	7.00	417.88	418.04
CI	634+40.19	7.00	417.95	418.09
CJ	634+50.19	7.00	418.01	418.13
CK	634+60.19	7.00	418.08	418.18
CL	634+70.19	7.00	418.15	418.23
CM	634+80.19	7.00	418.22	418.27
CN	634+90.19	7.00	418.28	418.31
☉ Bearing Pier 7	635+00.19	7.00	418.35	418.35
CO	635+10.19	7.00	418.42	418.42
CP	635+20.19	7.00	418.49	418.49
CQ	635+30.19	7.00	418.56	418.56
CR	635+40.19	7.00	418.62	418.63
CS	635+50.19	7.00	418.69	418.70
CT	635+60.19	7.00	418.75	418.77
CU	635+70.19	7.00	418.82	418.84
CV	635+80.19	7.00	418.88	418.90
CW	635+90.19	7.00	418.94	418.96
CX	636+00.19	7.00	419.00	419.01
CY	636+10.19	7.00	419.05	419.06
CZ	636+20.19	7.00	419.11	419.11
DA	636+30.19	7.00	419.16	419.16
DB	636+40.19	7.00	419.22	419.22
☉ Bearing Pier 8	636+50.19	7.00	419.27	419.27
DC	636+60.19	7.00	419.32	419.34
DD	636+70.19	7.00	419.36	419.41
DE	636+80.19	7.00	419.41	419.49
DF	636+90.19	7.00	419.46	419.56
DG	637+00.19	7.00	419.50	419.62
DH	637+10.19	7.00	419.54	419.68
DI	637+20.19	7.00	419.59	419.75
DJ	637+30.19	7.00	419.63	419.80
DK	637+40.19	7.00	419.67	419.83
DL	637+50.19	7.00	419.71	419.86
DM	637+60.19	7.00	419.76	419.90
DN	637+70.19	7.00	419.80	419.91
DO	637+80.19	7.00	419.84	419.92
DP	637+90.19	7.00	419.89	419.92
☉ Bearing East Abutment	638+00.19	7.00	419.93	419.93
☉ Expansion Joint	638+01.08	7.00	419.93	419.93
Back of East Abutment	638+02.56	7.00	419.94	419.94

GIRDER LINE 5 - UNIT 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 6	633+46.02	14.00	417.19	417.19
☉ Bearing Pier 6	633+46.77	14.00	417.19	417.19
CA	633+56.77	14.00	417.26	417.30
CB	633+66.77	14.00	417.33	417.40
CC	633+76.77	14.00	417.40	417.51
CD	633+86.77	14.00	417.46	417.60
CE	633+96.77	14.00	417.53	417.68
CF	634+06.77	14.00	417.60	417.76
CG	634+16.77	14.00	417.67	417.84
CH	634+26.77	14.00	417.74	417.90
CI	634+36.77	14.00	417.80	417.94
CJ	634+46.77	14.00	417.87	417.99
CK	634+56.77	14.00	417.94	418.04
CL	634+66.77	14.00	418.01	418.08
CM	634+76.77	14.00	418.07	418.12
CN	634+86.77	14.00	418.14	418.17
☉ Bearing Pier 7	634+96.77	14.00	418.21	418.21
CO	635+06.77	14.00	418.28	418.28
CP	635+16.77	14.00	418.35	418.35
CQ	635+26.77	14.00	418.41	418.41
CR	635+36.77	14.00	418.48	418.48
CS	635+46.77	14.00	418.55	418.56
CT	635+56.77	14.00	418.61	418.63
CU	635+66.77	14.00	418.68	418.70
CV	635+76.77	14.00	418.74	418.76
CW	635+86.77	14.00	418.80	418.82
CX	635+96.77	14.00	418.86	418.87
CY	636+06.77	14.00	418.91	418.92
CZ	636+16.77	14.00	418.97	418.97
DA	636+26.77	14.00	419.02	419.03
DB	636+36.77	14.00	419.08	419.08
☉ Bearing Pier 8	636+46.77	14.00	419.13	419.13
DC	636+56.77	14.00	419.18	419.20
DD	636+66.77	14.00	419.23	419.28
DE	636+76.77	14.00	419.28	419.35
DF	636+86.77	14.00	419.32	419.42
DG	636+96.77	14.00	419.36	419.49
DH	637+06.77	14.00	419.41	419.55
DI	637+16.77	14.00	419.45	419.61
DJ	637+26.77	14.00	419.49	419.66
DK	637+36.77	14.00	419.54	419.70
DL	637+46.77	14.00	419.58	419.73
DM	637+56.77	14.00	419.62	419.76
DN	637+66.77	14.00	419.67	419.78
DO	637+76.77	14.00	419.71	419.78
DP	637+86.77	14.00	419.75	419.79
☉ Bearing East Abutment	637+96.77	14.00	419.80	419.80
☉ Expansion Joint	637+97.66	14.00	419.80	419.80
Back of East Abutment	637+99.14	14.00	419.81	419.81

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USER NAME = jdoover
 Illinois Design Firm Number 184.001670
 PLOT SCALE =
 PLOT DATE = 8/15/17 AM 2/27/2015

DESIGNED - JD
 CHECKED - BB
 DRAWN - WS
 CHECKED - CJF

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
 STRUCTURE NO. 079-0019

SHEET NO. 10 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 42
CONTRACT NO. 76H81				
ILLINOIS FEO. AID PROJECT				

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Abut. Slab	625+02.03	-16.00	411.43
A1	625+12.03	-16.00	411.50
Bk. of W. Abutment	625+22.03	-16.00	411.57

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Abut. Slab	625+00.08	-12.00	411.50
A1	625+10.08	-12.00	411.57
Bk. of W. Abutment	625+20.08	-12.00	411.64

PGL & C ROADWAY

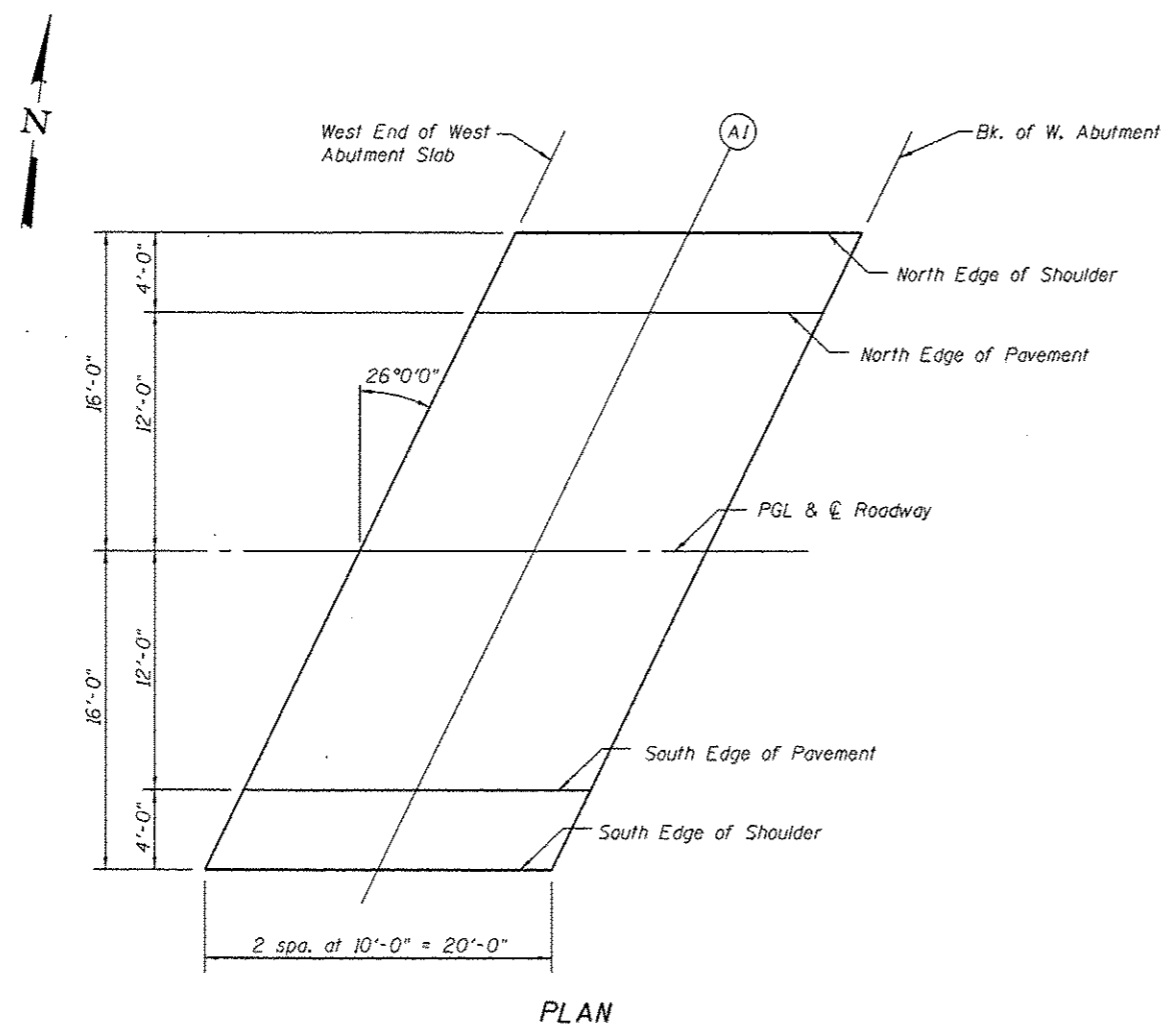
Location	Station	Offset	Theoretical Grade Elevations
West End of W. Abut. Slab	624+94.23	0.00	411.65
A1	625+04.23	0.00	411.72
Bk. of W. Abutment	625+14.23	0.00	411.79

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Abut. Slab	624+88.38	12.00	411.42
A1	624+98.38	12.00	411.49
Bk. of W. Abutment	625+08.38	12.00	411.56

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
West End of W. Abut. Slab	624+86.43	16.00	411.33
A1	624+96.43	16.00	411.40
Bk. of W. Abutment	625+06.43	16.00	411.46



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E-AS 7-1-10



USER NAME = bbovce	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184.001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8:45 AM 2/27/2015	CHECKED - CJF	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST VAULTED ABUTMENT SLAB ELEVATIONS
STRUCTURE NO. 079-0019

SHEET NO. 11 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 43
CONTRACT NO. 76HB1				
ILLINOIS FED. AID PROJECT				

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	638+13.77	-16.00	419.83
A2	638+23.77	-16.00	419.87
East End of E. Abut. Slab	638+33.77	-16.00	419.91

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	638+11.82	-12.00	419.90
A2	638+21.82	-12.00	419.95
East End of E. Abut. Slab	638+31.82	-12.00	419.99

PGL & C ROADWAY

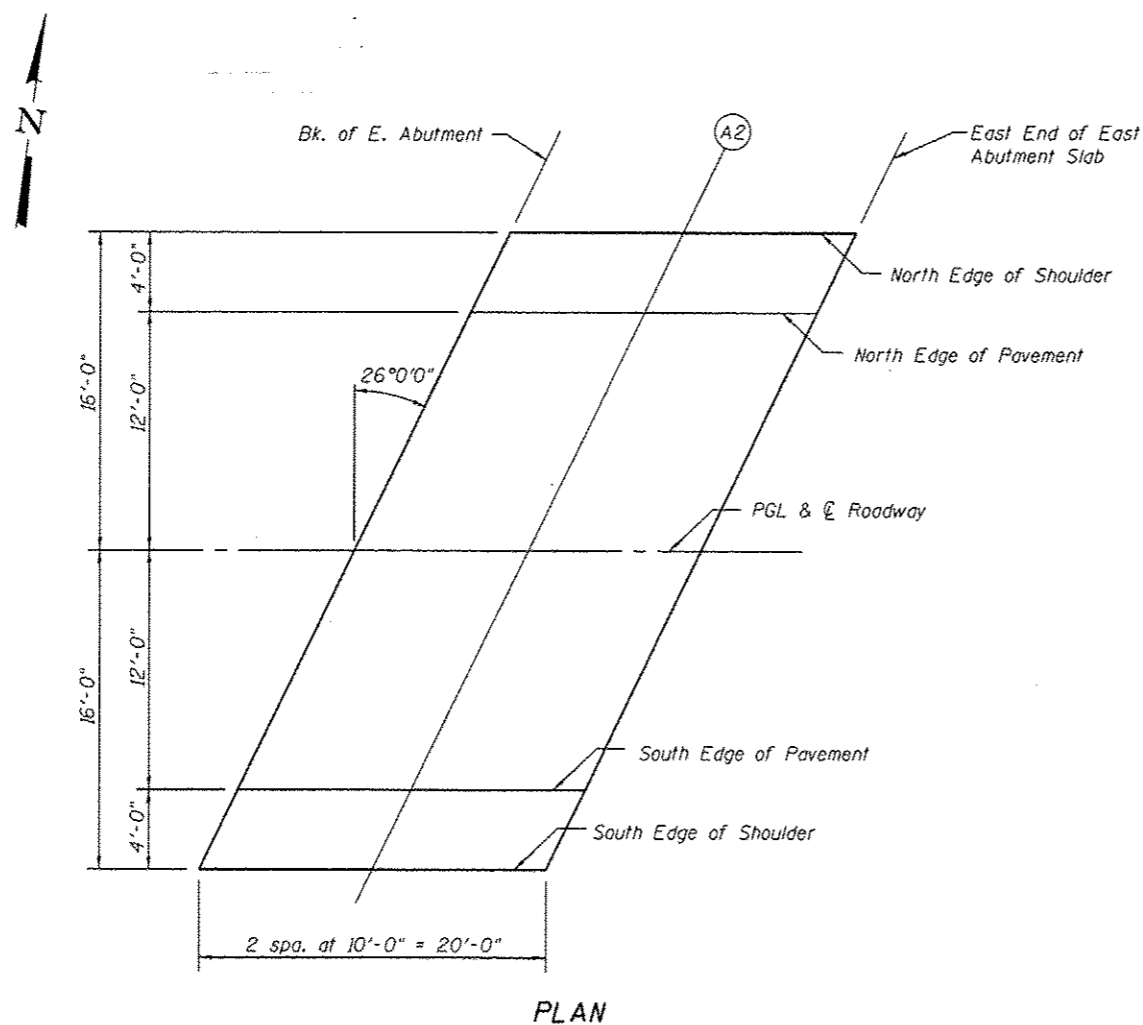
Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	638+05.97	0.00	420.06
A2	638+15.97	0.00	420.11
East End of E. Abut. Slab	638+25.97	0.00	420.15

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	638+00.12	12.00	419.85
A2	638+10.12	12.00	419.90
East End of E. Abut. Slab	638+20.12	12.00	419.94

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
Bk. of E. Abutment	637+98.17	16.00	419.76
A2	638+08.17	16.00	419.80
East End of E. Abut. Slab	638+18.17	16.00	419.85



PLAN

E-AS

7-1-10

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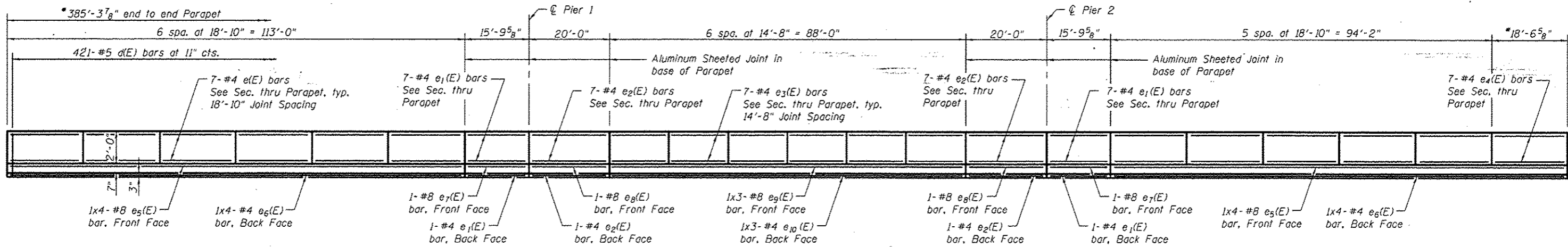
USER NAME = bbovoo	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184.001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
PLOT DATE = 8/5/18 AM 2/27/2015	CHECKED - CJF	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

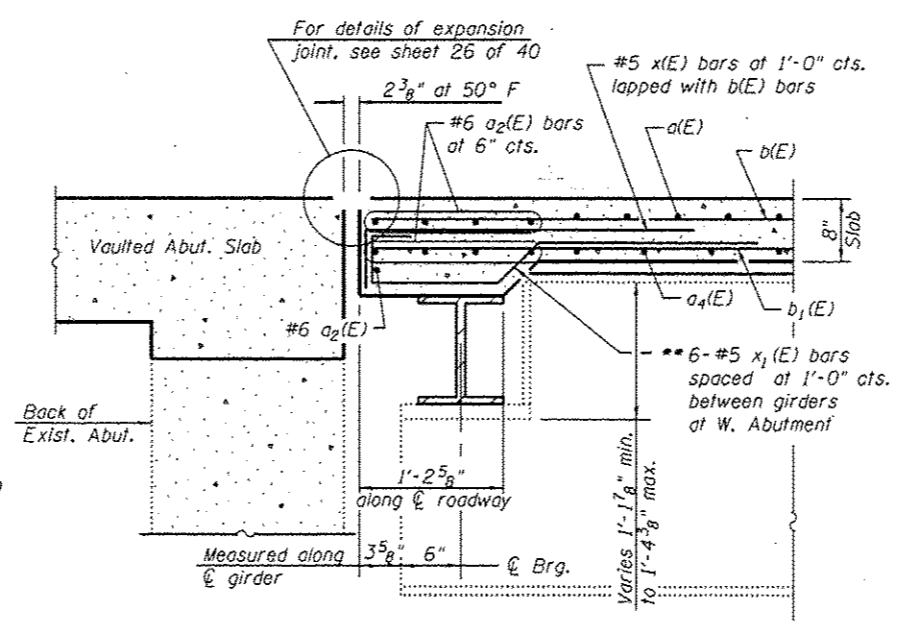
**TOP OF EAST VAULTED ABUTMENT SLAB ELEVATIONS
STRUCTURE NO. 079-0019**

SHEET NO. 12 OF 40 SHEETS

P.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 44
CONTRACT NO. 76H81			ILLINOIS FED. AID PROJECT	



INSIDE ELEVATION OF PARAPET
(North Parapet shown, South Parapet similar)



* Dimension shown is approximate. The Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement shall be submitted to the Engineer for approval.

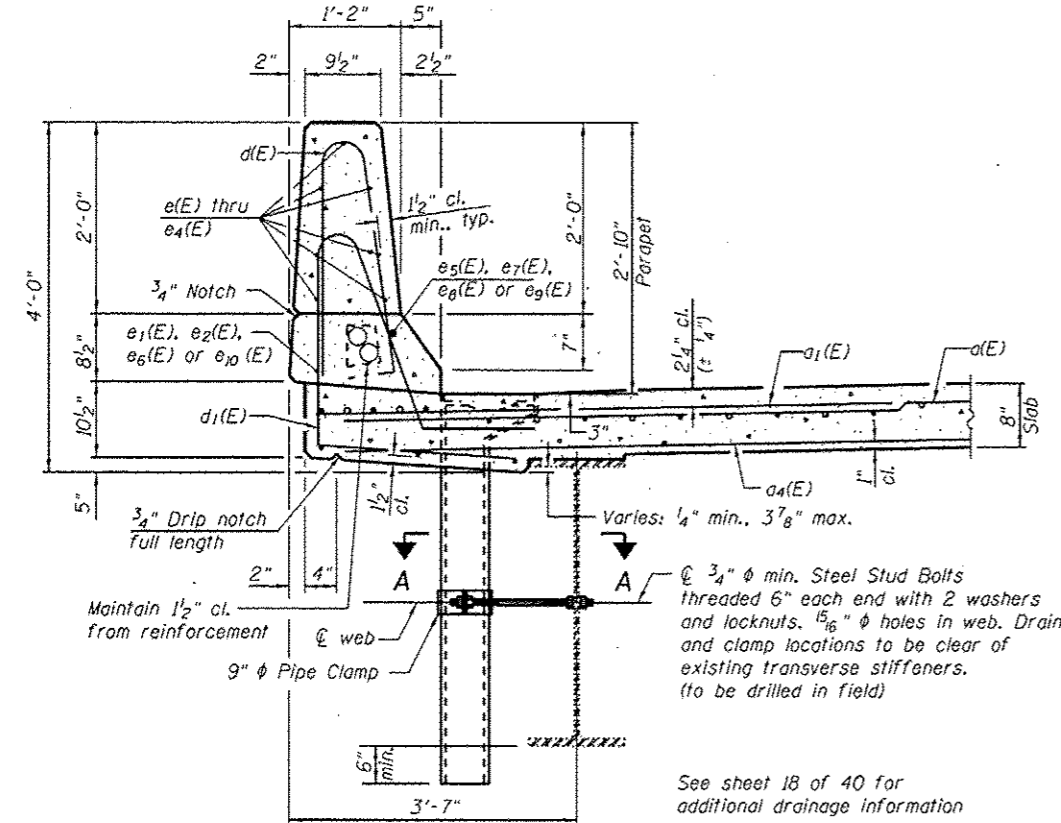
MINIMUM BAR LAP

(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"

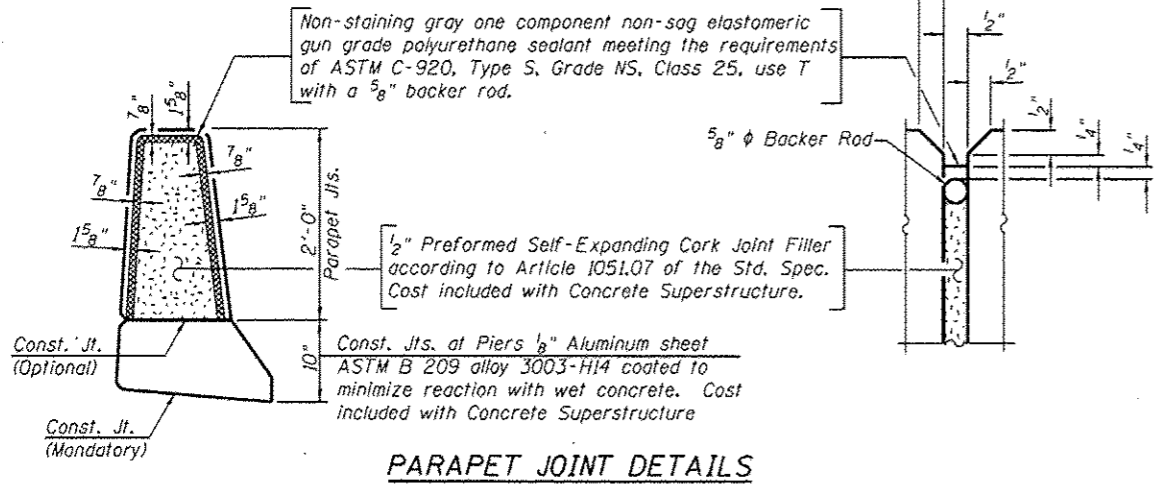
SUPERSTRUCTURE - UNIT 1
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	615	#5	34'-7"	—
a1(E)	614	#6	6'-6"	—
a2(E)	36	#6	20'-10"	—
a3(E)	48	#5	1'-6"	—
a4(E)	462	#5	33'-10"	—
a9(E)	2	#6	2'-9"	—
a10(E)	4	#6	7'-5"	—
b(E)	570	#5	28'-1"	—
b1(E)	420	#5	29'-11"	—
b2(E)	210	#6	27'-3"	—
d(E)	842	#5	5'-7"	—
d1(E)	842	#5	8'-4"	—
e(E)	154	#4	18'-7"	—
e1(E)	32	#4	15'-6"	—
e2(E)	32	#4	19'-9"	—
e3(E)	84	#4	14'-5"	—
e4(E)	14	#4	18'-3"	—
e5(E)	16	#8	32'-1"	—
e6(E)	16	#4	29'-9"	—
e7(E)	4	#8	15'-6"	—
e8(E)	4	#8	19'-9"	—
e9(E)	6	#8	32'-9"	—
e10(E)	6	#4	30'-7"	—
x(E)	68	#5	4'-1"	—
x1(E)	24	#5	5'-4"	—
x2(E)	30	#5	6'-0"	—
Reinforcement Bars, Epoxy Coated	Pound		103,330	
Concrete Superstructure	Cu. Yd.		463.8	

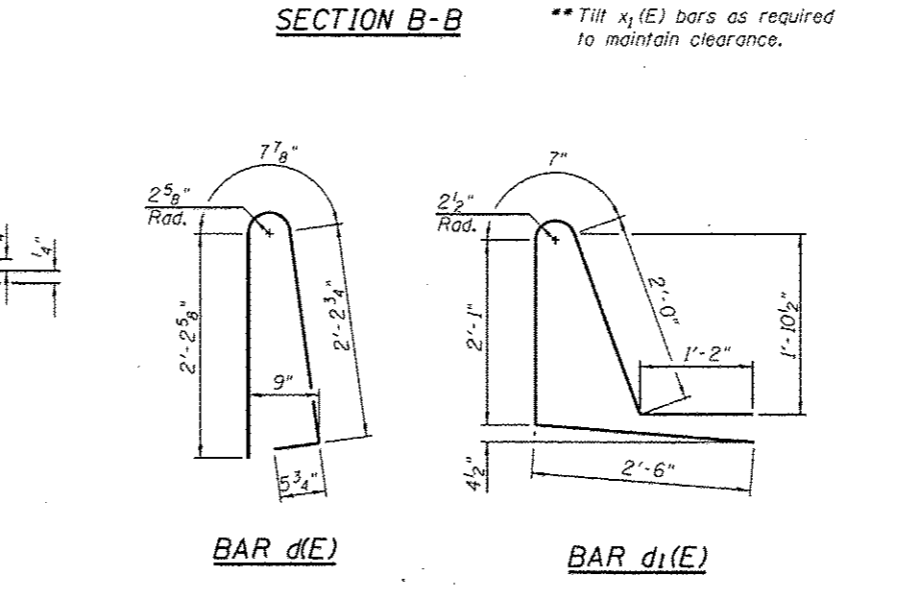
Bars indicated thus 1x3-#8 etc. indicates 1 line of #8 bars with 3 lengths per line. Place x(E), x1(E) and x2(E) bars parallel to girders.



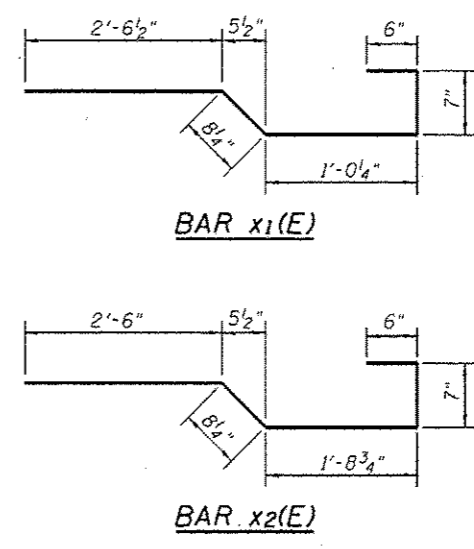
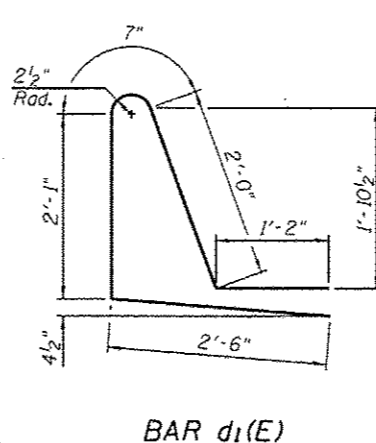
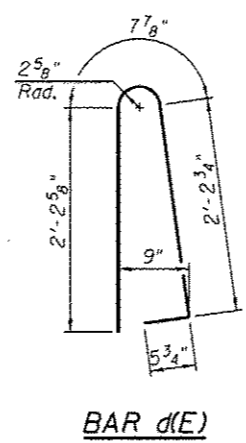
SECTION THRU PARAPET



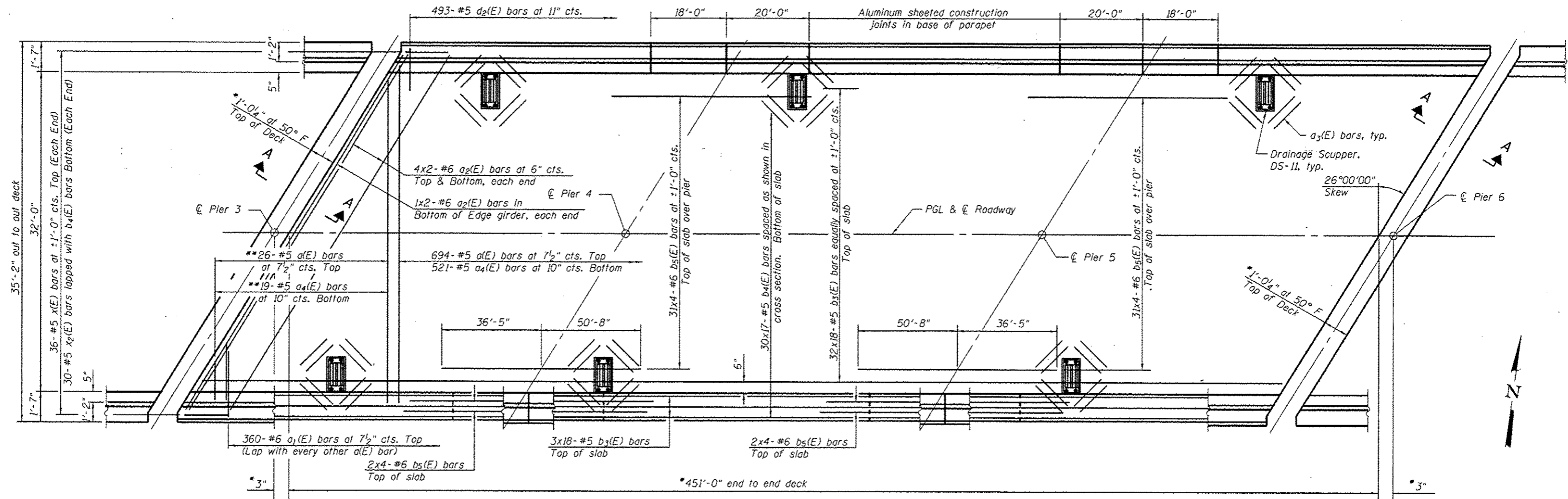
PARAPET JOINT DETAILS



SECTION B-B



S:\Projects\14-00022-Elr Roads Rd over Kaskaskia River\Elr\Drawings\Final\Plus\079009-0409-06-Superstructure Unit 1.dwg



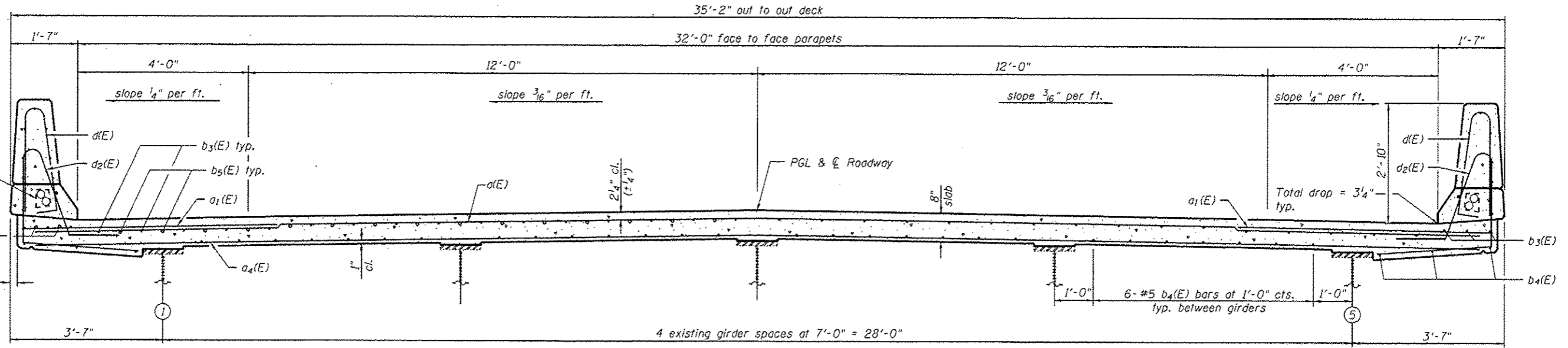
MINIMUM BAR LAP

#5 bar = 2'-7"
 #6 bar = 3'-1"

* Dimension shown is approximate. The Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement shall be submitted to the Engineer for approval.
 ** Order d(E) & a4(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

PLAN

Notes:
 See sheet 18 of 40 for Unit 2 superstructure details and Bill of Material. Bars indicated thus 30x14-#5 etc. indicates 30 lines of #5 bars with 14 lengths per line.
 See sheet 18 of 40 for parapet reinforcement.
 See sheets 18 and 28 of 40 for Section A-A.
 See sheet 1 of 40 for drainage locations.



CROSS SECTION
 (Looking East)

S:\Projects\40222-2-11-Roads-Rd-over-Roadside-River-Bridge\Drawings\Final\Plan\079001-16-09-07-Superstructure Unit 2.dgn



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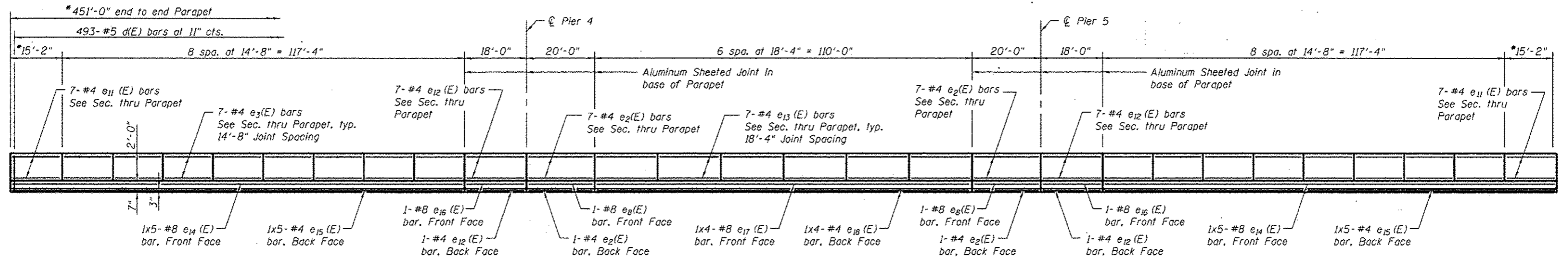
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE UNIT 2
 STRUCTURE NO. 079-0019

SHEET NO. 17 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
85B	12-B-1	RANDOLPH	90	49
CONTRACT NO. 76H81				

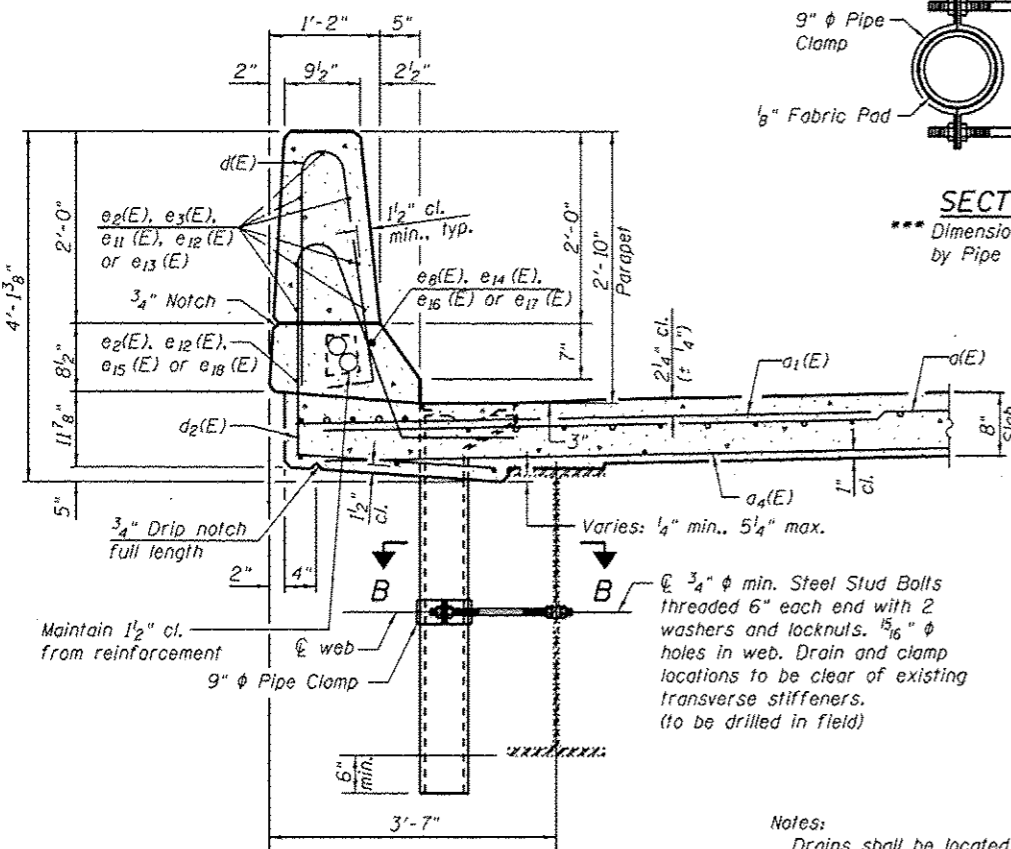
ILLINOIS FED. AID PROJECT



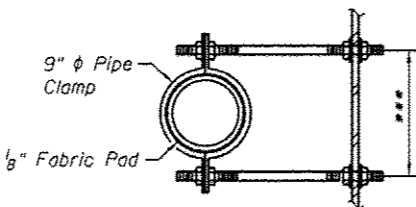
INSIDE ELEVATION OF PARAPET
(North Parapet shown, South Parapet similar)

* Dimension shown is approximate. The Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement shall be submitted to the Engineer for approval.

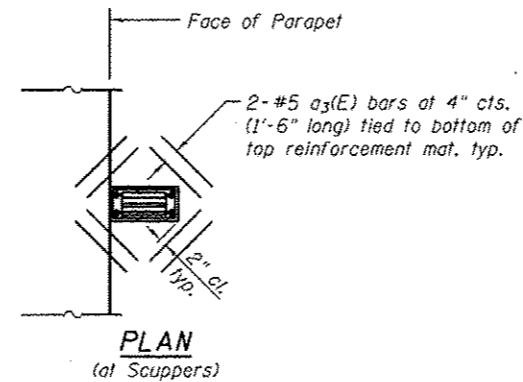
MINIMUM BAR LAP
(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"



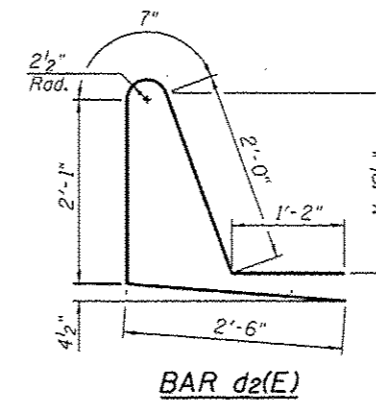
SECTION THRU PARAPET



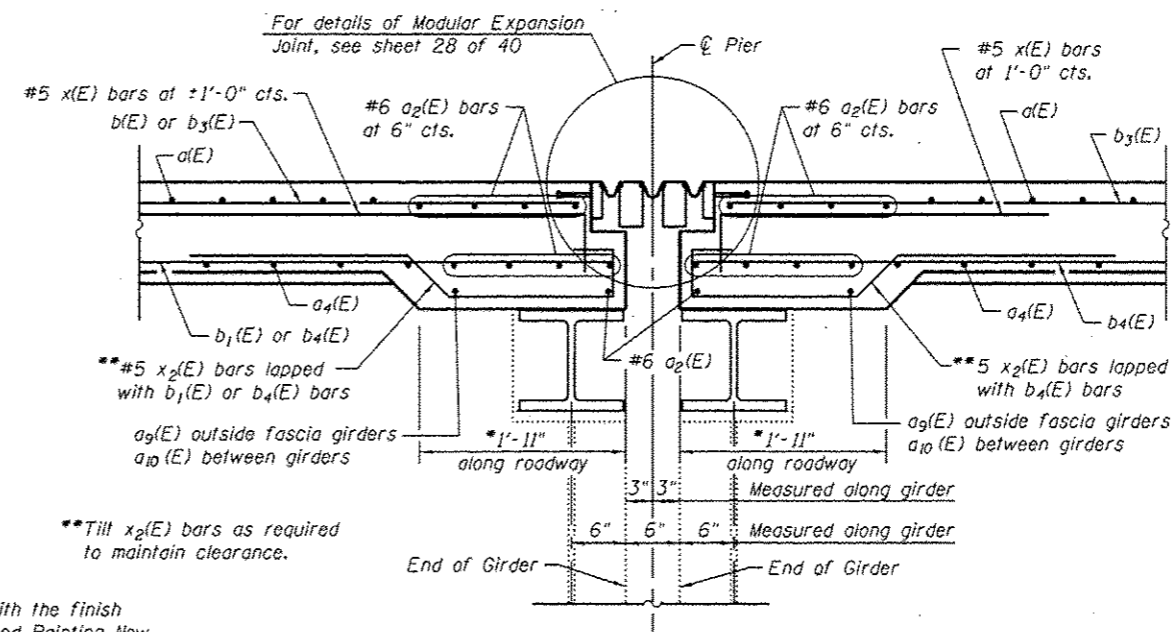
SECTION B-B
*** Dimension as required by Pipe Clamp



PLAN
(at Scuppers)



BAR d2(E)



SECTION A-A
(Edge Beam at Piers 3 & 6 to extend full width of deck)

SUPERSTRUCTURE - UNIT 2
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	720	#5	34'-7"	—
a1(E)	720	#6	6'-6"	—
a2(E)	36	#6	20'-10"	—
a3(E)	48	#5	1'-6"	—
a4(E)	540	#5	33'-10"	—
a9(E)	4	#6	2'-9"	—
a10(E)	8	#6	7'-5"	—
b3(E)	684	#5	27'-6"	—
b4(E)	510	#5	29'-0"	—
b5(E)	280	#6	24'-1"	—
d(E)	986	#5	5'-7"	—
d2(E)	986	#5	8'-4"	—
e2(E)	32	#4	19'-9"	—
e3(E)	224	#4	14'-5"	—
e8(E)	4	#8	19'-9"	—
e11(E)	28	#4	14'-11"	—
e12(E)	32	#4	17'-9"	—
e13(E)	84	#4	18'-1"	—
e14(E)	20	#8	30'-7"	—
e15(E)	20	#4	28'-1"	—
e16(E)	4	#8	17'-9"	—
e17(E)	8	#8	31'-4"	—
e18(E)	8	#4	29'-0"	—
x(E)	72	#5	4'-1"	—
x2(E)	60	#5	6'-0"	—
Reinforcement Bars, Epoxy Coated	Pound		121,020	
Concrete Superstructure	Cu. Yds.		548.7	

Bars indicated thus 1x3-#8 etc. indicates 1 line of #8 bars with 3 lengths per line. Place x(E) and x2(E) bars parallel to girders. See sheet 16 of 40 for additional Bar Bends.

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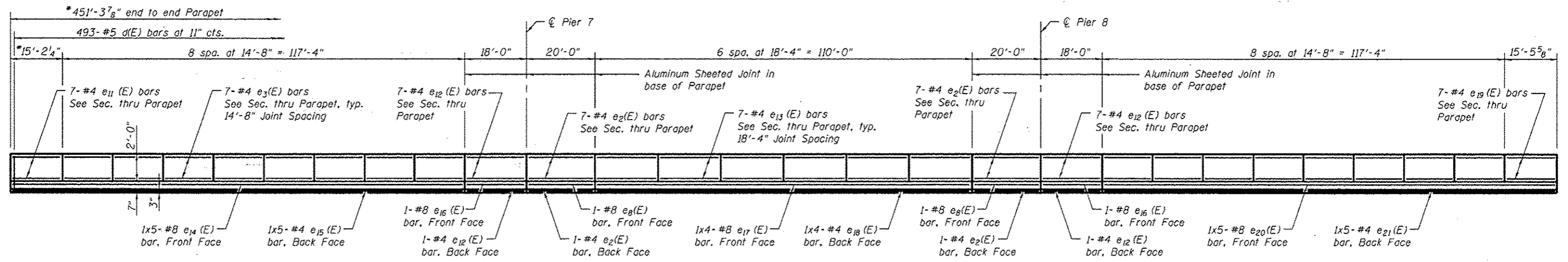
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS UNIT 2
STRUCTURE NO. 079-0019

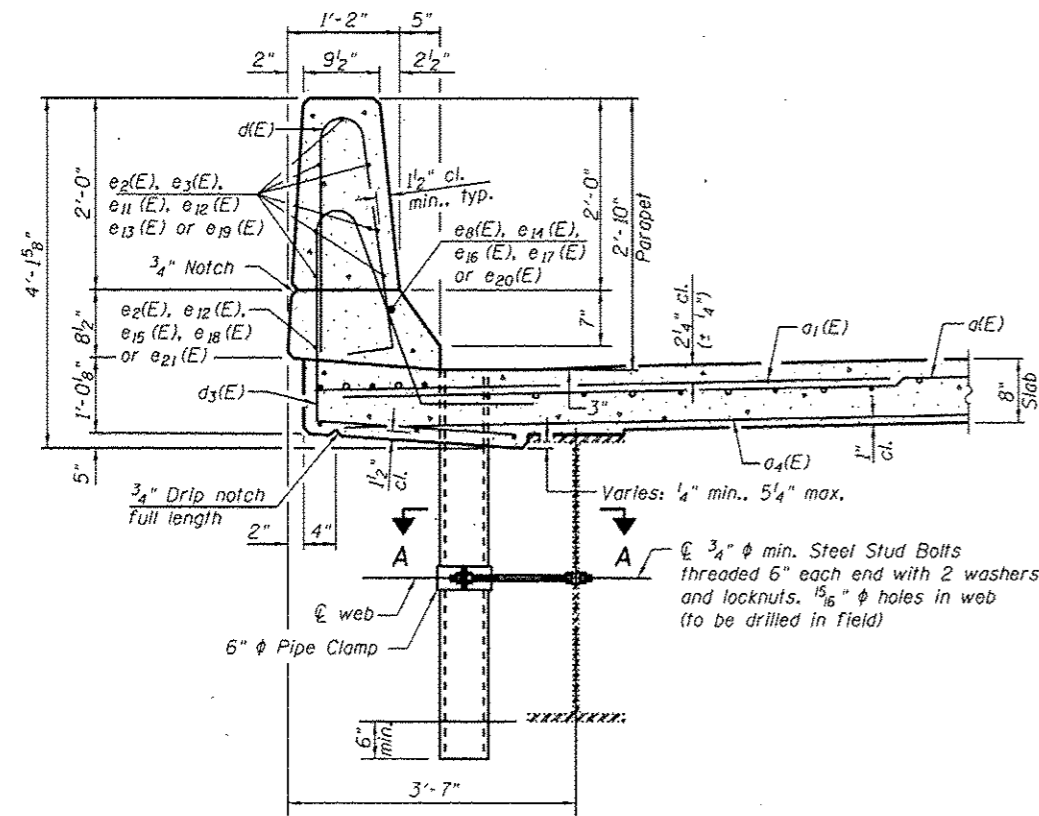
SHEET NO. 18 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 50
CONTRACT NO. 76H81			ILLINOIS FED. AID PROJECT	

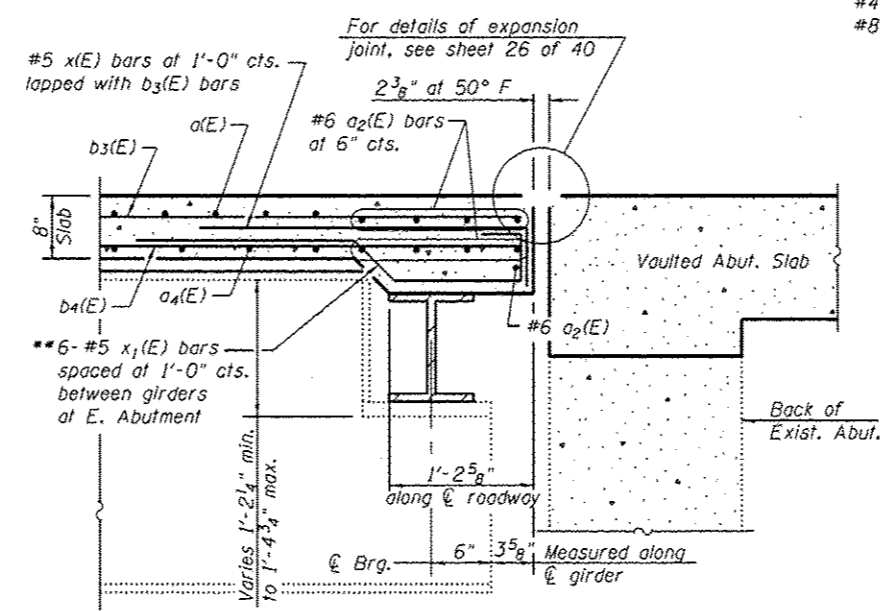


INSIDE ELEVATION OF PARAPET
(North Parapet shown, South Parapet similar)

* Dimension shown is approximate. The Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement shall be submitted to the Engineer for approval.



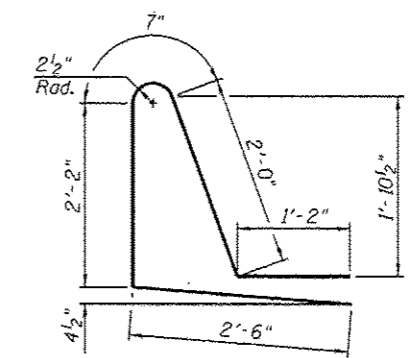
SECTION THRU PARAPET
(Floor drain shown, Scupper similar)



SECTION B-B

MINIMUM BAR LAP
(Parapet)
#4 bar = 2'-0\"
#8 bar = 5'-2\"

** Tilt x1(E) bars as required to maintain clearance.



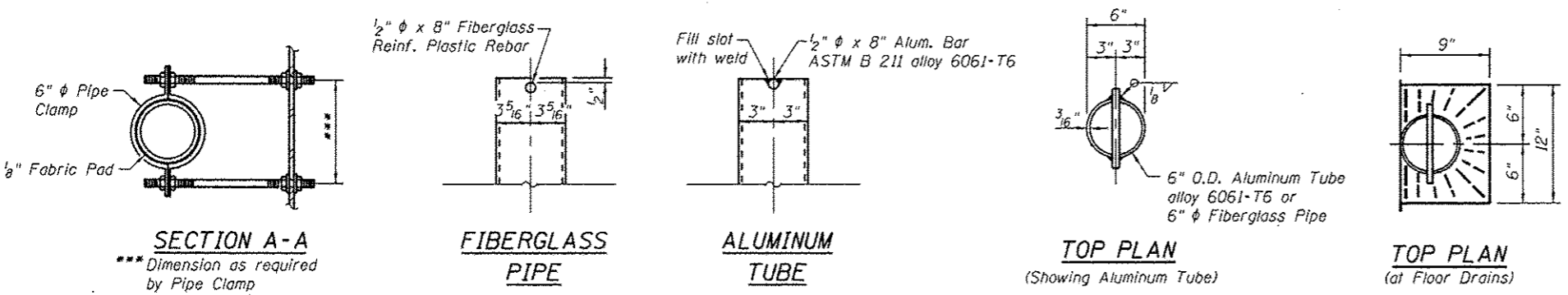
BAR d3(E)

Notes:
Drains shall be located clear of all diaphragms. The exterior surfaces of the drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coatings' Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.
For Scupper Details See sheet 38 of 40.

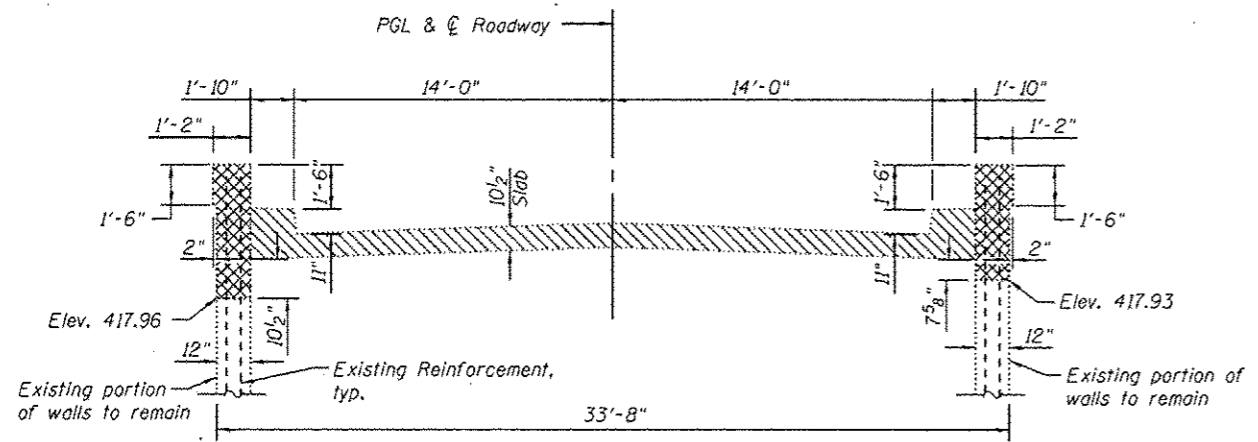
SUPERSTRUCTURE - UNIT 3
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	720	#5	34'-7"	—
a1(E)	720	#6	6'-6"	—
a2(E)	36	#6	20'-10"	—
a3(E)	32	#5	1'-6"	—
a4(E)	540	#5	33'-10"	—
a9(E)	2	#6	2'-9"	—
a10(E)	4	#6	7'-5"	—
b3(E)	684	#5	27'-6"	—
b4(E)	510	#5	29'-0"	—
b5(E)	280	#6	24'-1"	—
d(E)	986	#5	5'-7"	—
d3(E)	986	#5	8'-5"	—
e2(E)	32	#4	19'-9"	—
e3(E)	224	#4	14'-5"	—
e8(E)	4	#8	19'-9"	—
e11(E)	14	#4	14'-11"	—
e12(E)	32	#4	17'-9"	—
e13(E)	84	#4	18'-1"	—
e14(E)	10	#8	30'-7"	—
e15(E)	10	#4	28'-1"	—
e16(E)	4	#8	17'-9"	—
e17(E)	8	#8	31'-4"	—
e18(E)	8	#4	29'-0"	—
e19(E)	14	#4	15'-2"	—
e20(E)	10	#8	30'-8"	—
e21(E)	10	#4	28'-2"	—
x(E)	68	#5	4'-1"	—
x1(E)	24	#5	5'-4"	—
x2(E)	30	#5	6'-0"	—
Reinforcement Bars, Epoxy Coated		Pound	120,960	
Concrete Superstructure		Cu. Yds.	550.0	

Bars indicated thus 1x3-#8 etc. indicates 1 line of #8 bars with 3 lengths per line. Place x(E), x1(E) and x2(E) bars parallel to girders. See sheet 18 of 40 for Section A-A. See sheet 18 of 40 for additional drainage details. See sheet 16 of 40 for additional Bar Bends.



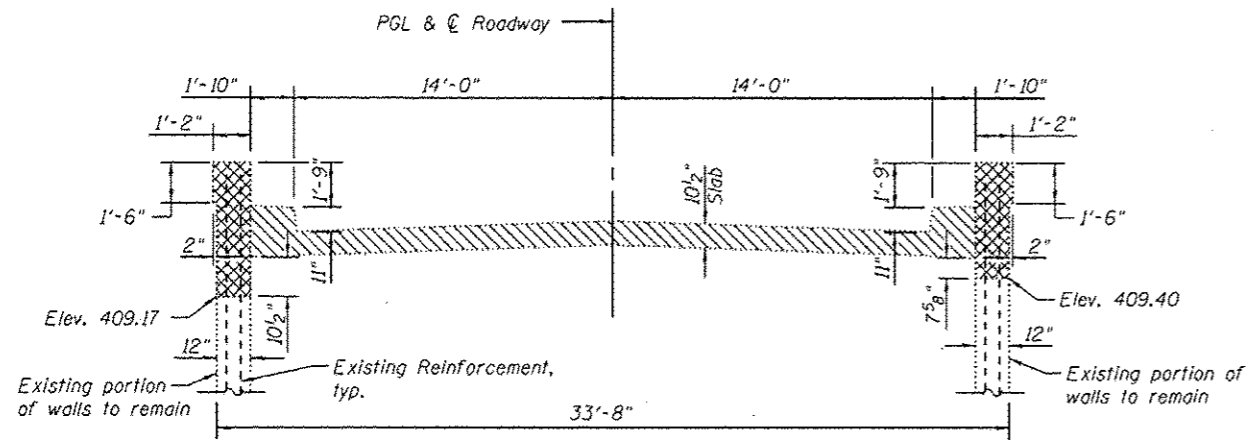
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LIMITS OF REMOVAL FOR EAST VAULTED ABUTMENT SLAB

(Shown at Rt. L's)
(Looking West)

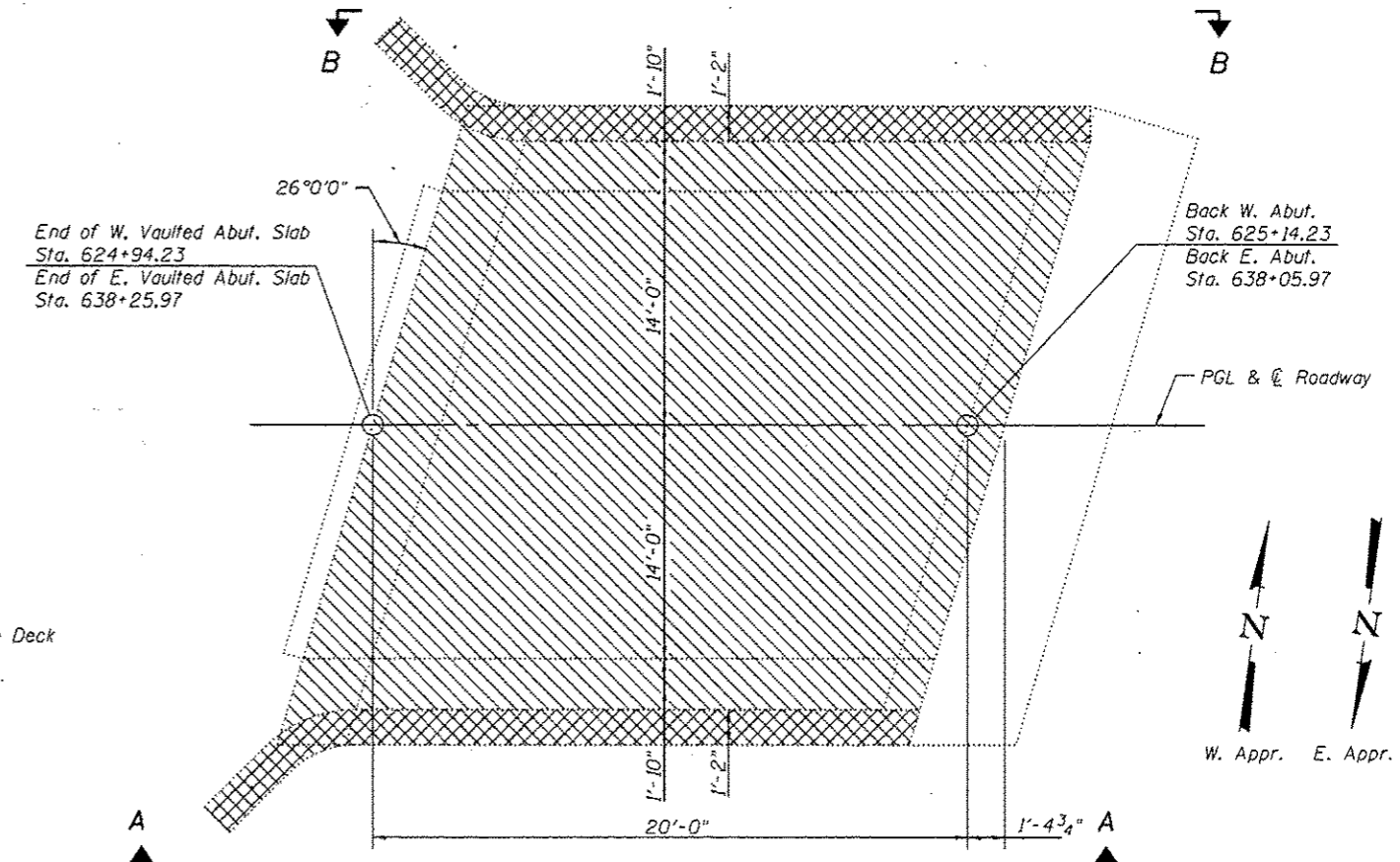
- Denotes limits of Removal of Existing Concrete Deck
- Denotes limits of Concrete Removal



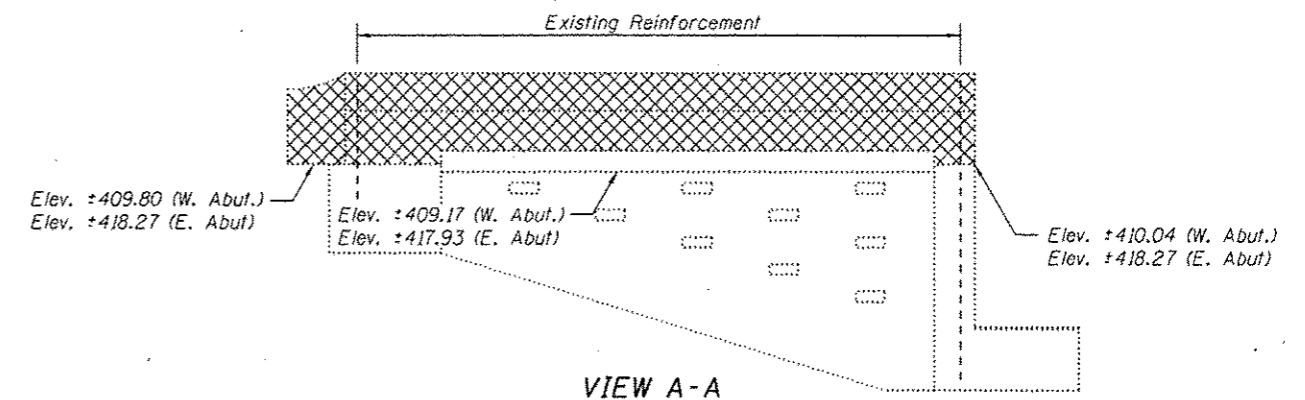
LIMITS OF REMOVAL FOR WEST VAULTED ABUTMENT SLAB

(Shown at Rt. L's)
(Looking West)

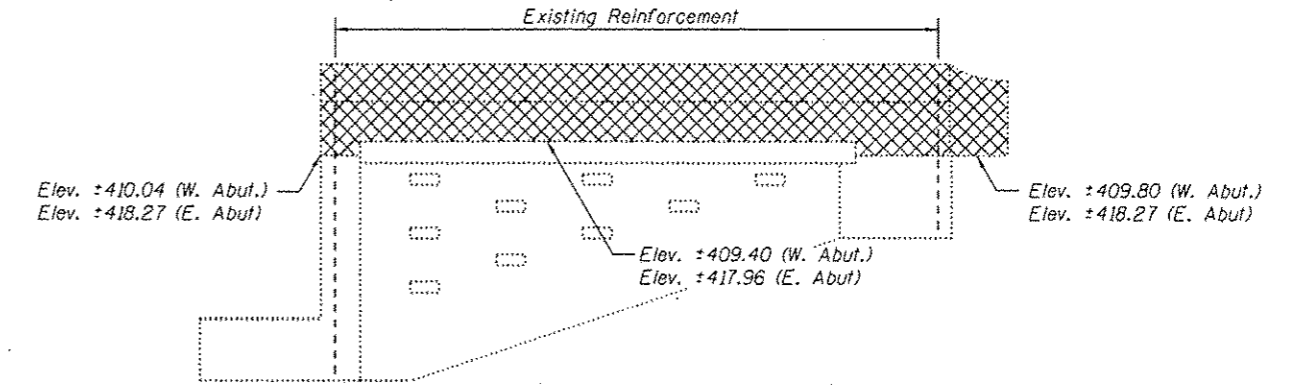
Notes:
Spalling of concrete due to the cutting of the existing vaulted abutment shall be repaired as "Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)". See sheets 35 and 36 of 40 for quantities.
See Existing Plan details of Vaulted Abutment for additional details and dimensions not shown.
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.



PLAN



VIEW A-A



VIEW B-B

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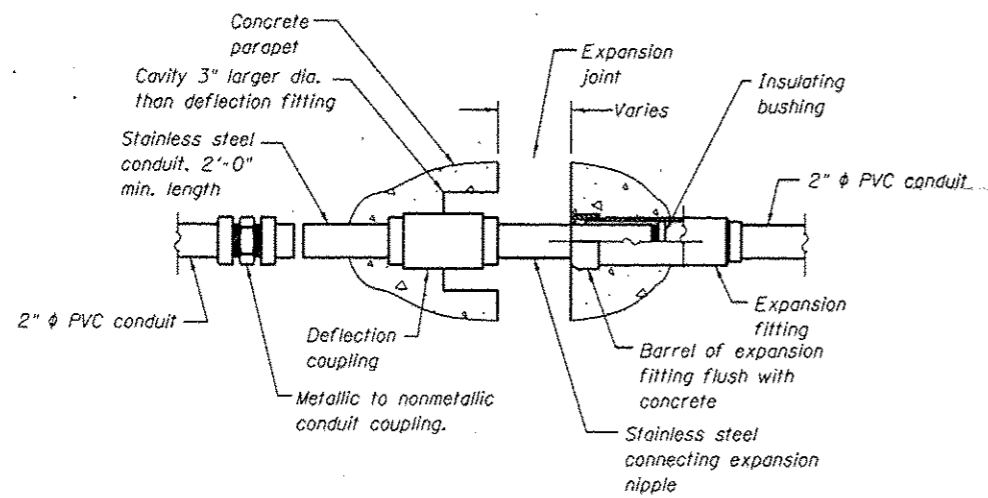
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**VAULTED ABUTMENT SLAB REMOVAL
STRUCTURE NO. 079-0019**

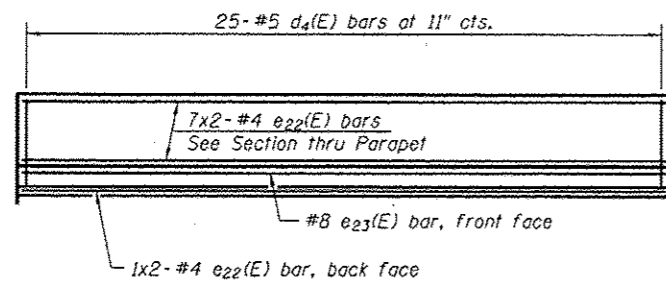
SHEET NO. 21 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 53
CONTRACT NO. 76H81				

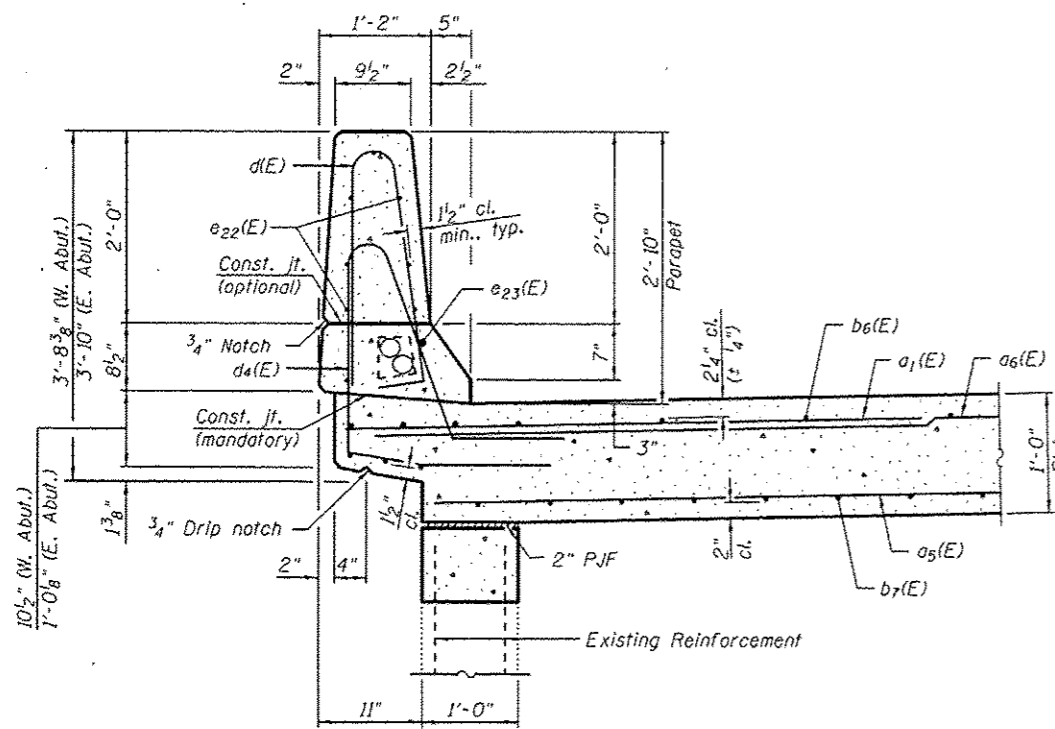
ILLINOIS FED. AID PROJECT



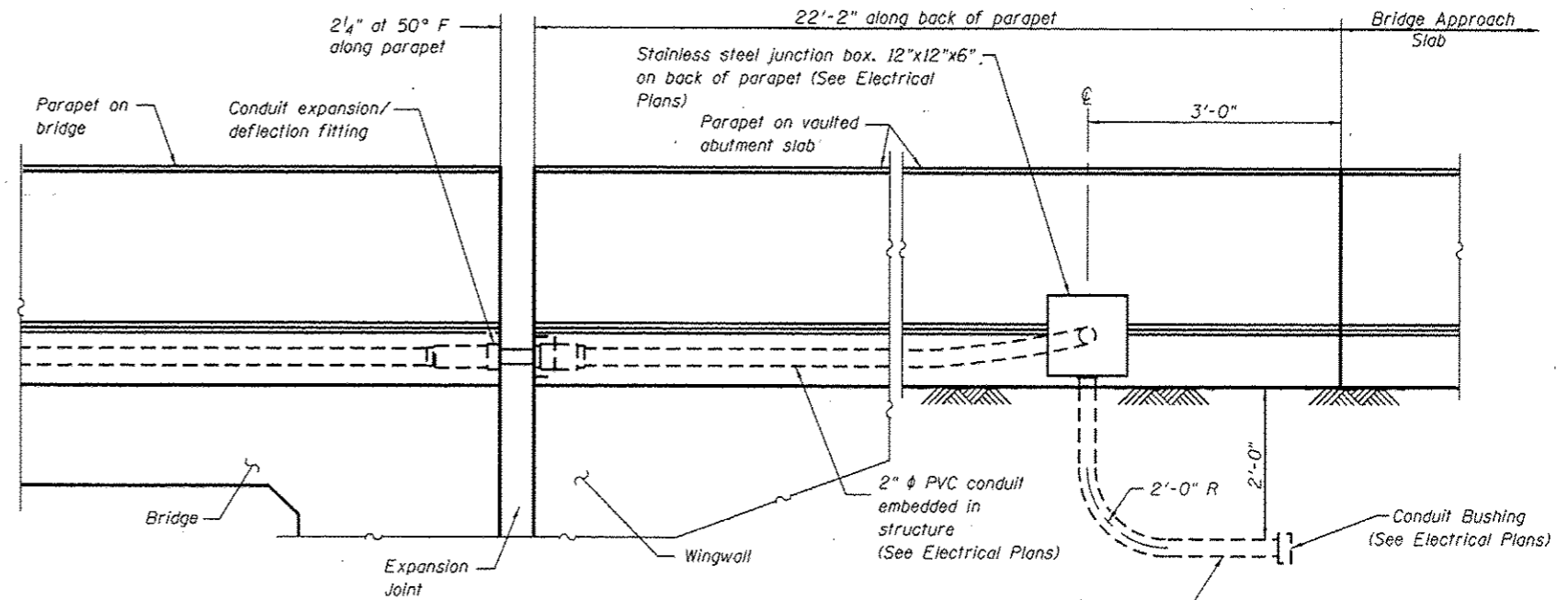
COMBINATION EXPANSION / DEFLECTION FITTING



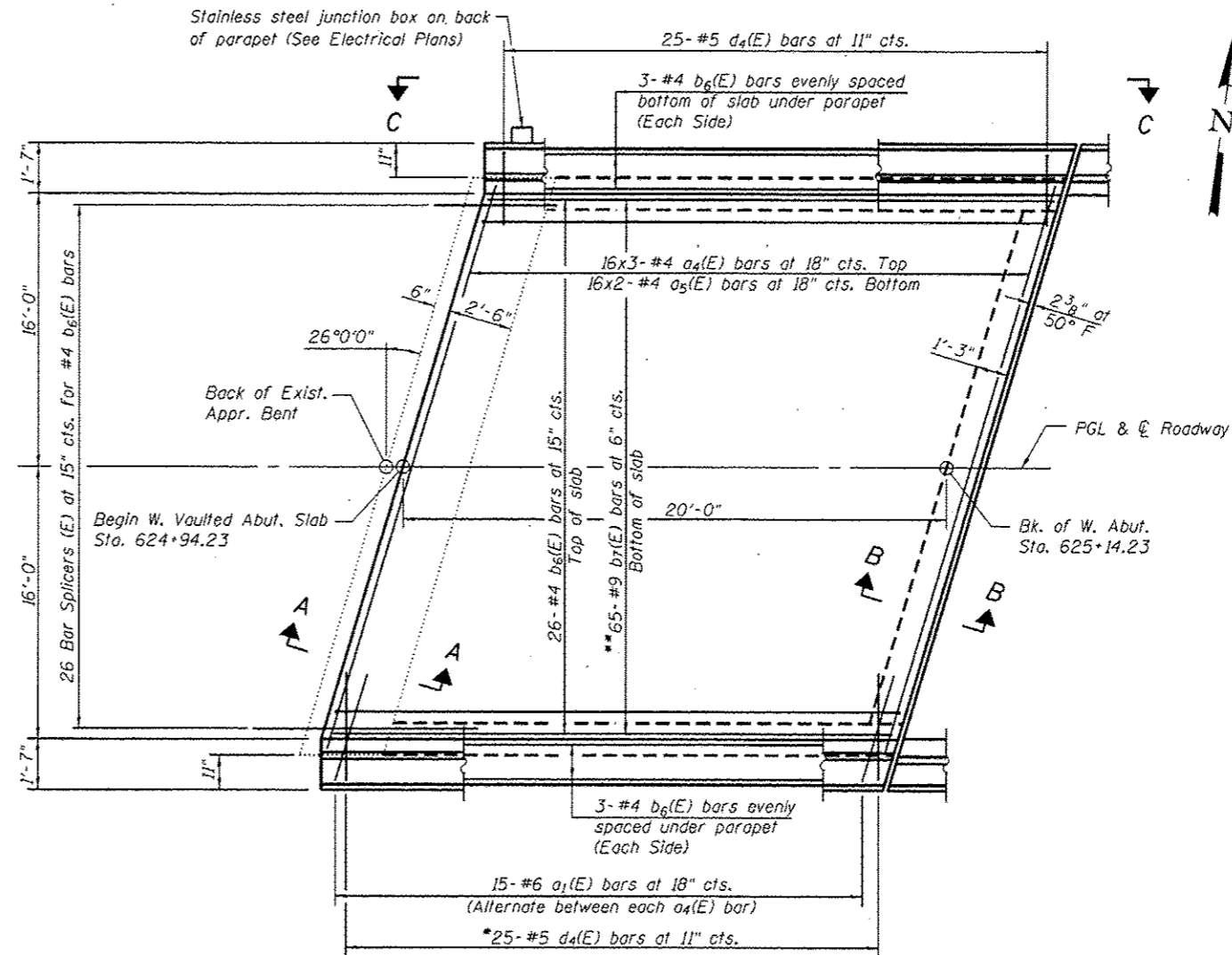
INSIDE ELEVATION OF PARAPET



SECTION THRU PARAPET



View C-C



PLAN

MINIMUM BAR LAP

#4 bar = 2'-0"

* Place d4(E) bars at end of Parapet along skew.

** Tilt #9-b7(E) bars as required to maintain clearance

Notes:
See sheet 23 of 40 for Bar Bends and Bill of Materials.
See sheet 23 of 40 for Sections A-A and B-B.
See sheet 37 of 40 for Bar Splicer details.

The barrel in the expansion fitting shall be fully embedded in the concrete on one side of the expansion joint. One half the length of the deflection fitting shall be embedded in the concrete on the other side of the expansion joint.

The Contractor shall install combination expansion deflection fittings at all bridge expansion joints.

With the approval of the Engineer, the Contractor may substitute two 12"x12"x6" min. stainless steel junction boxes attached to the back of the parapets and connected with liquidtight flexible nonmetallic conduit for all expansion joints.

The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.

During removal of falsework, the Contractor shall follow all requirements set forth by OSHA regarding confined spaces.

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

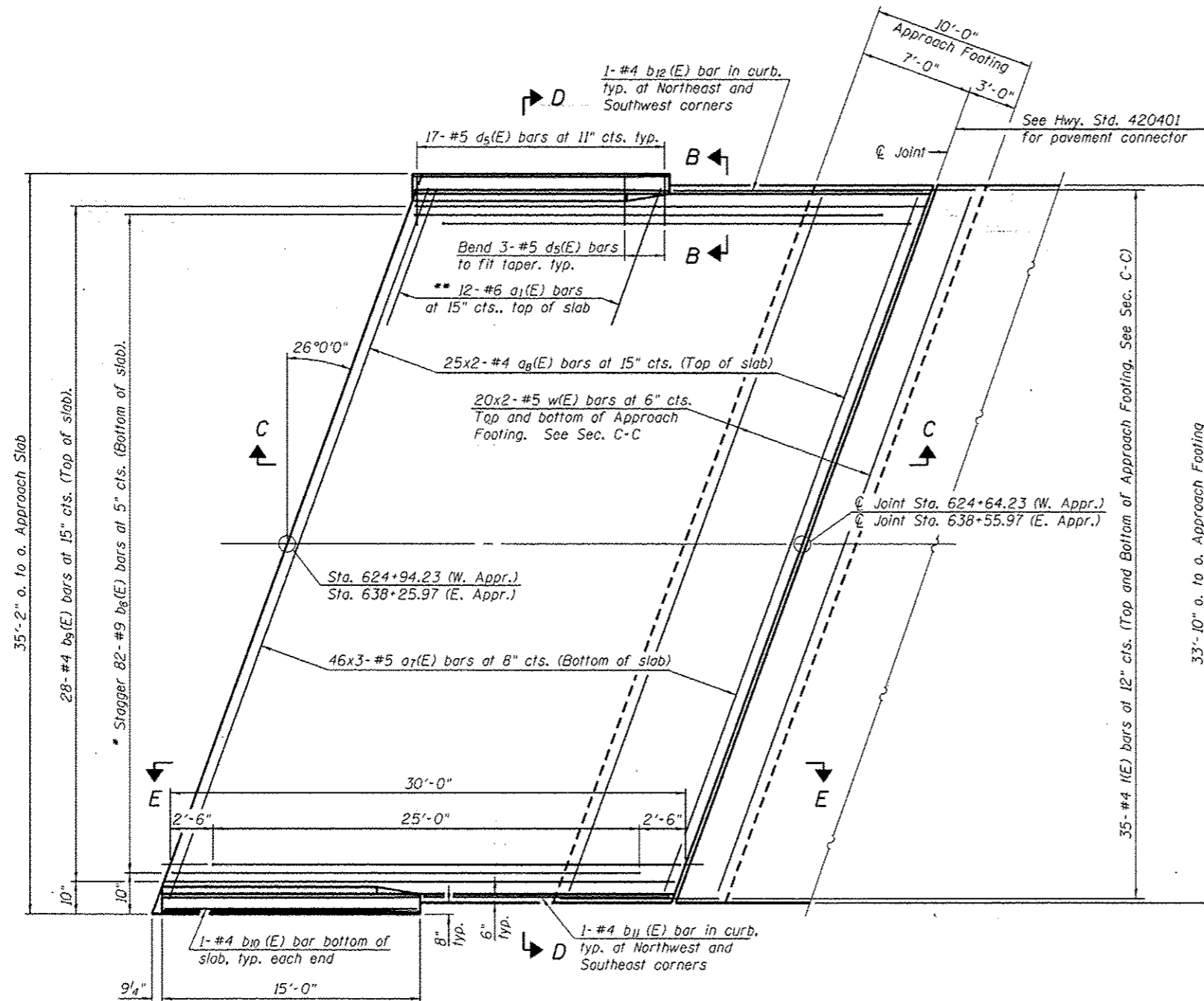
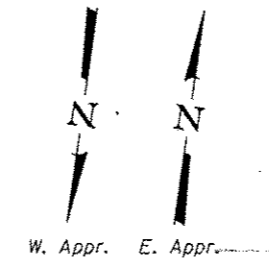
**WEST VAULTED ABUTMENT SLAB DETAILS
STRUCTURE NO. 079-0019**

SHEET NO. 22 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	54
			CONTRACT NO. 76H81	

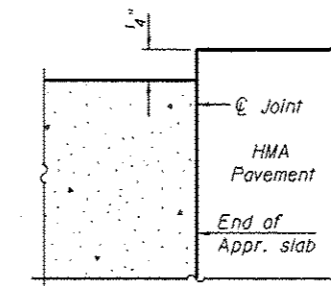
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Note:
See sheet 25 of 40 for Sections C-C & D-D and View E-E.
a₇(E) and a₈(E) bar spacings measured along ϕ Roadway



PLAN

- * Tilt #9 b₈(E) bars as required to maintain clearance.
- ** Space between a₆(E) bars, typ. each parapet.

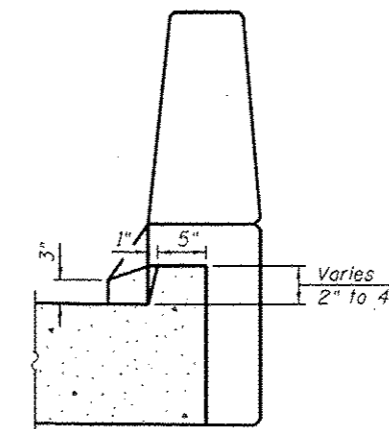


FLEXIBLE PAVEMENT

DETAIL A

MINIMUM BAR LAP

- #4 bar = 2'-0"
- #5 bar = 2'-6"



VIEW B-B

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

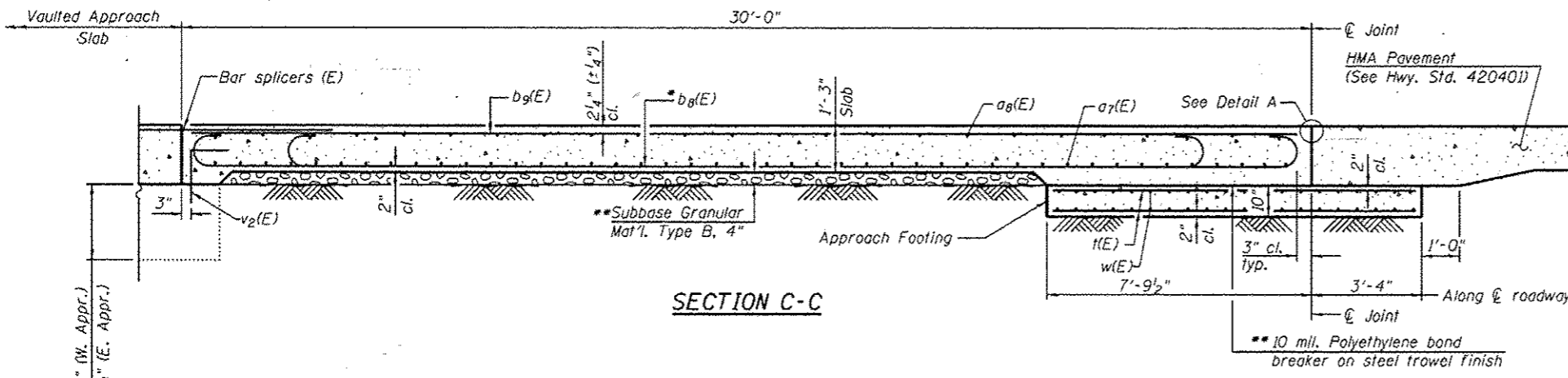
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 079-0019

SHEET NO. 24 OF 40 SHEETS

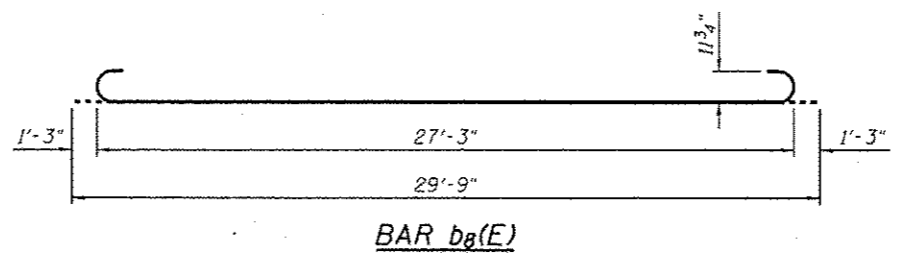
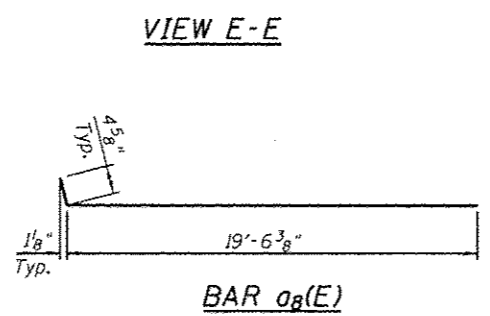
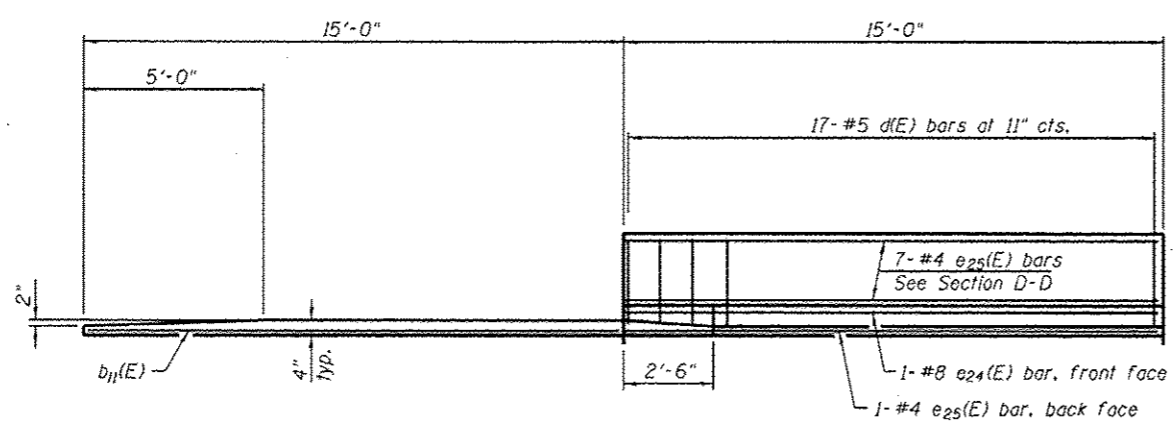
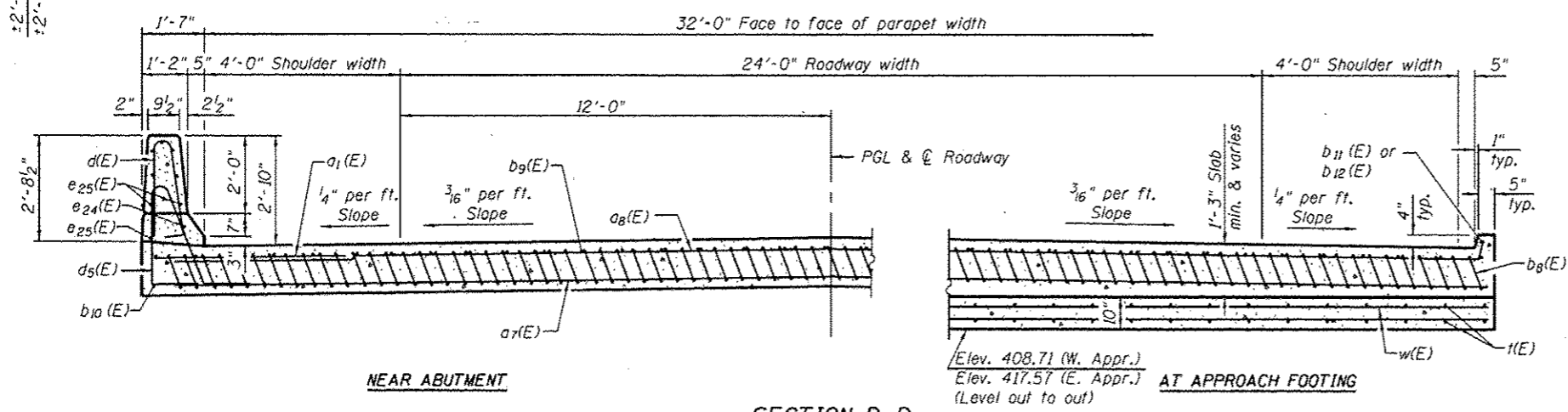
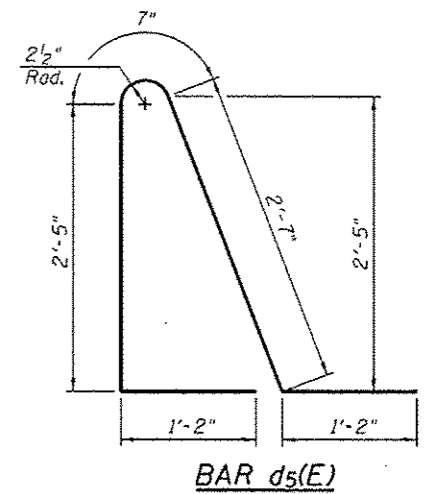
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	56

CONTRACT NO. 76H81

ILLINOIS FED. AID PROJECT



Notes:
 See sheet 24 of 40 for Detail A.
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
 Approach footing concrete shall be paid for as Concrete Structures.
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 For v2(E) bar details, see sheets 35 and 36 of 40.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 For bar splicer details, see sheet 37 of 40.
 Cost of excavation for approach footing included with Concrete Structures.

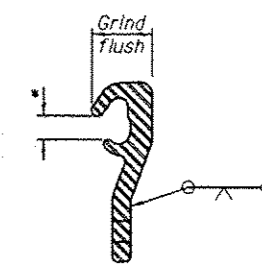
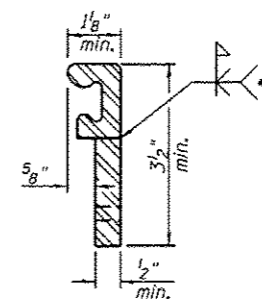
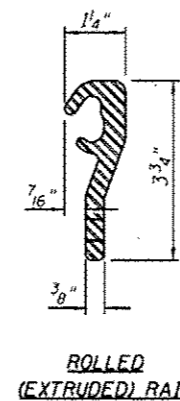
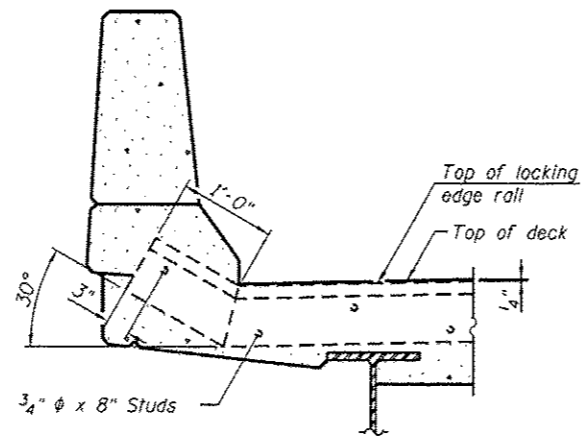
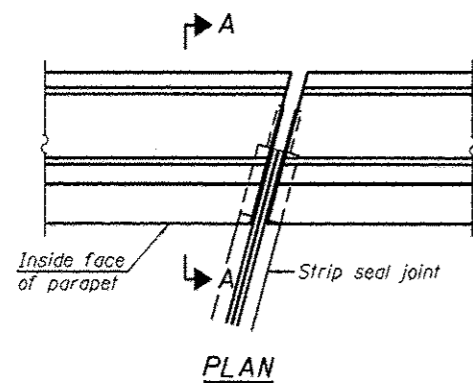


**TWO APPROACHES
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a1(E)	48	#6	6'-6"	—
a7(E)	276	#5	14'-8"	—
a8(E)	100	#4	19'-11"	—
b8(E)	164	#9	29'-9"	—
b9(E)	56	#4	29'-9"	—
b10(E)	4	#4	14'-9"	—
b11(E)	2	#4	14'-3"	—
b12(E)	2	#4	15'-2"	—
d(E)	68	#5	5'-7"	—
d5(E)	68	#5	7'-11"	—
e24(E)	4	#8	14'-9"	—
e25(E)	32	#4	14'-9"	—
t(E)	140	#4	10'-10"	—
w(E)	160	#5	20'-0"	—
Concrete Superstructure		Cu. Yd.	107.5	
Concrete Structures		Cu. Yd.	23.2	
Reinforcement Bars, Epoxy Coated		Pound	29,590	

* Tilt #9 b9(E) bars as required to maintain clearance.
 ** Cost included with Concrete Superstructure.

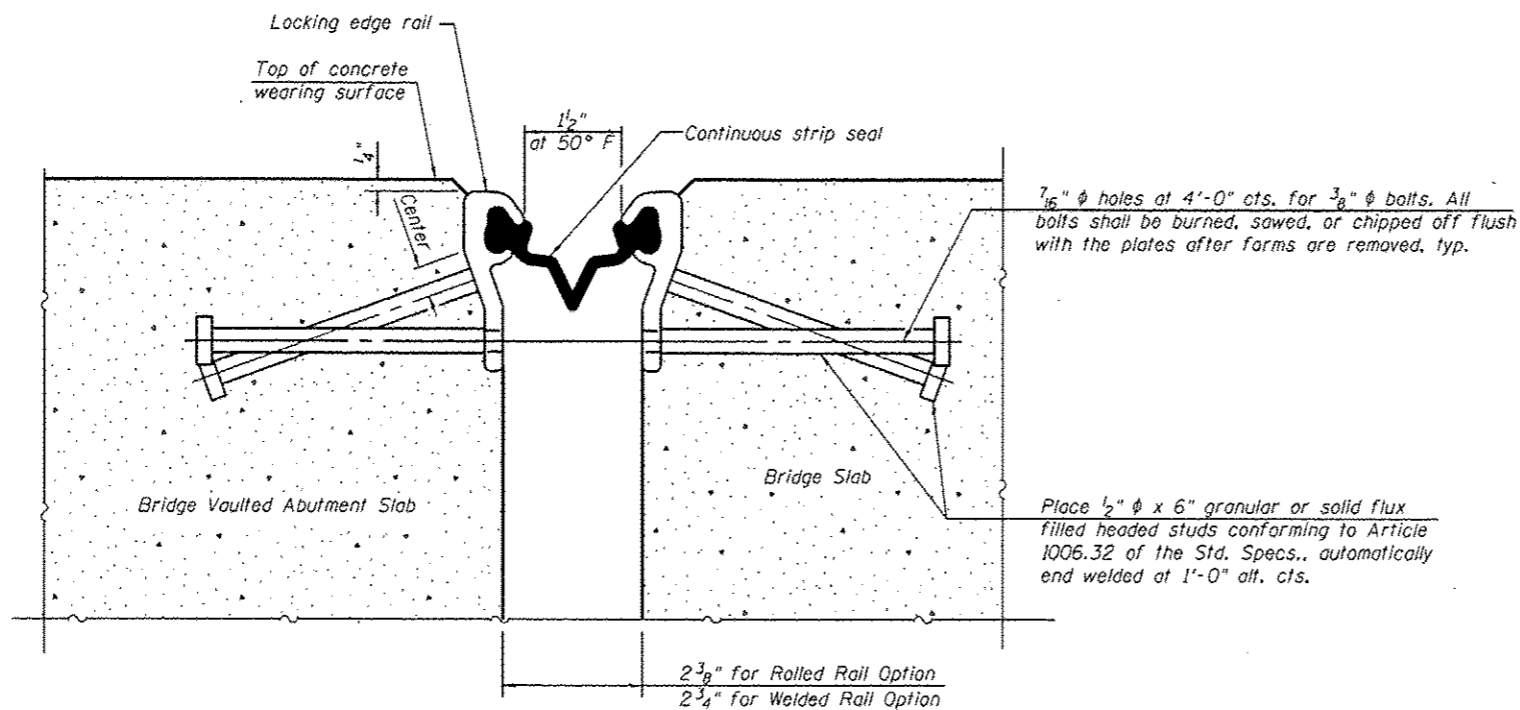
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SECTION A-A

LOCKING EDGE RAIL

- Omit weld at seal opening.
- Back gauge not required if complete joint penetration is verified by mock-up.



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

Place 1/2" ϕ x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" alt. cts.

2 3/8" for Rolled Rail Option
2 3/4" for Welded Rail Option

SECTION THRU STRIP SEAL JOINT (at Rt. L's)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The Manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments shall be 3/16", sealed with a suitable sealant.

The inside of the Locking Edge Rail groove shall be free of weld residue.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	76.0

S:\Projects\10-0022-Elr Roads Rd over Kostastala River Bridge\Design\Final\Plots\0790097-15409-026-P-055 Detail.dwg



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Illinois Design Firm Number 184.001670
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CHECKED - BB
DRAWN - WS
CHECKED - C.J.F.

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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

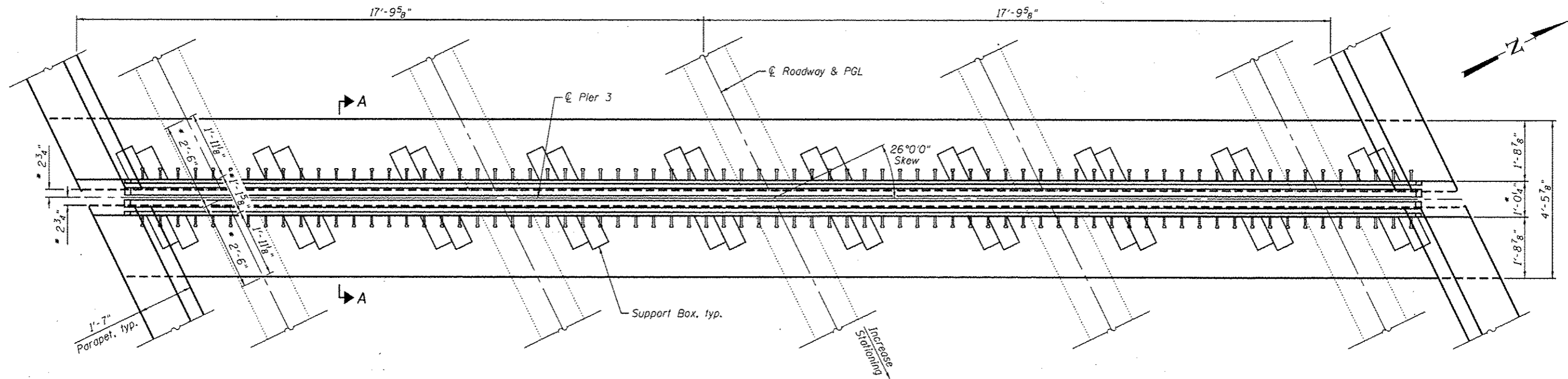
PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 079-0019

SHEET NO. 26 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	58

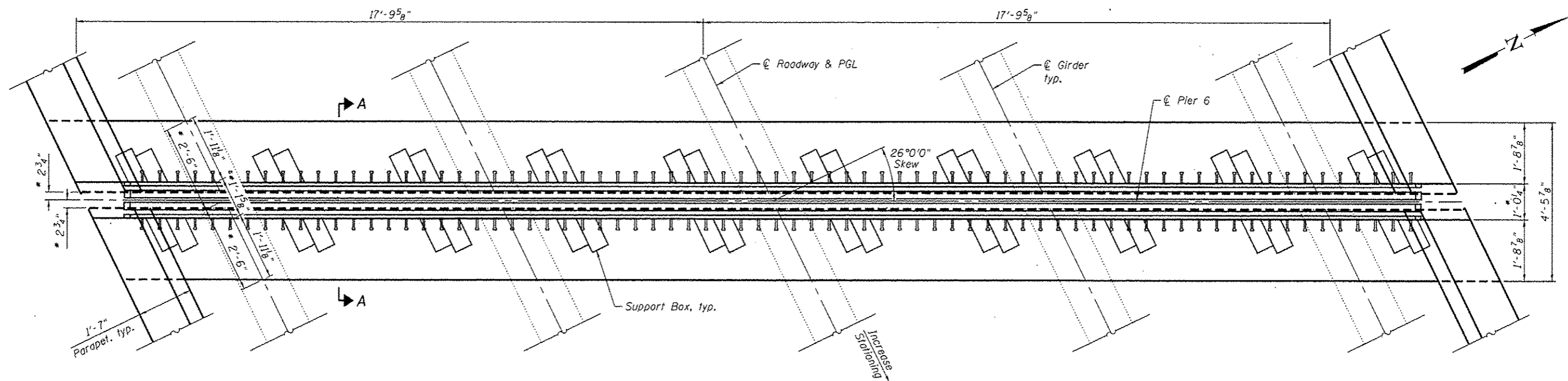
CONTRACT NO. 76HB1

ILLINOIS FED. AID PROJECT



PLAN AT PIER 3

* Dimensions are at 50° F



PLAN AT PIER 6

Note:
For Section A-A, see sheet 28 of 40.

S:\Projects\07-002-2111_Roads_Rd_Over_Kaskaskia_River\Grading\Final_Plan\07-002-2111-Modular_Expansion_Joint.dgn



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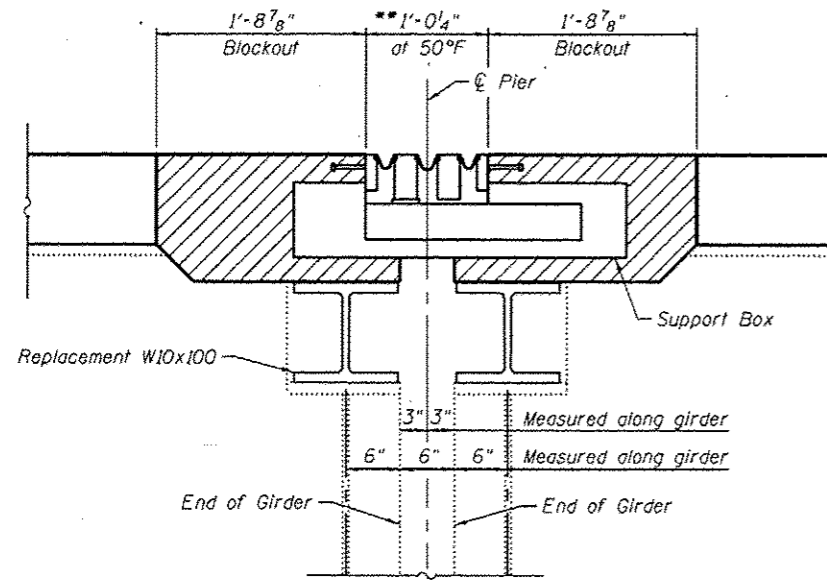
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT DETAILS
 STRUCTURE NO. 079-0019

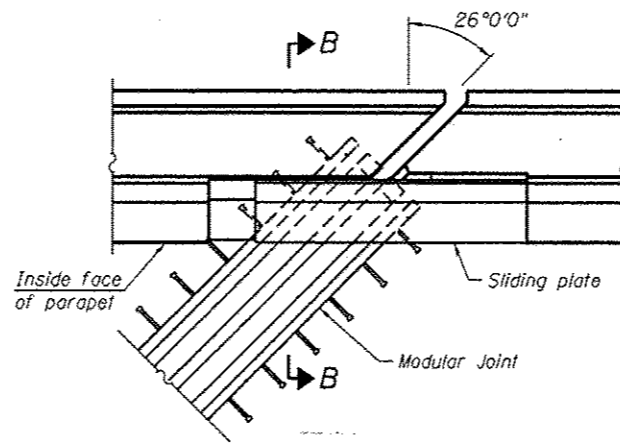
SHEET NO. 27 OF 40 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	59
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

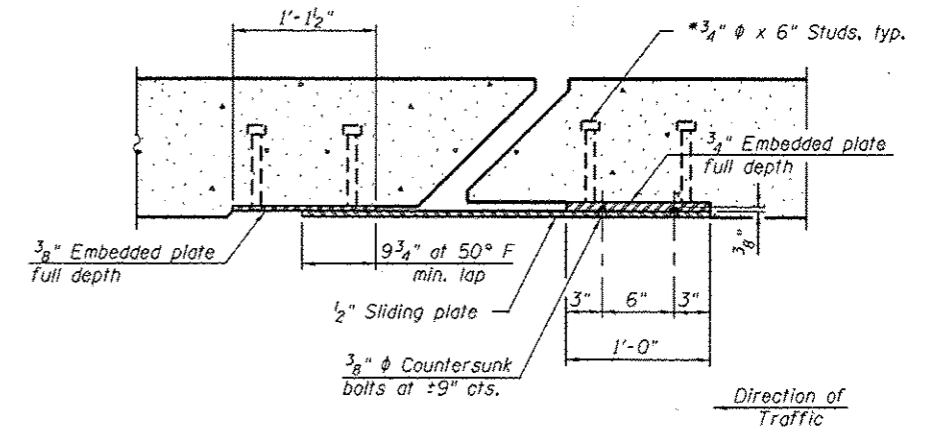


SECTION A-A

** Number of rails determined by Manufacturer



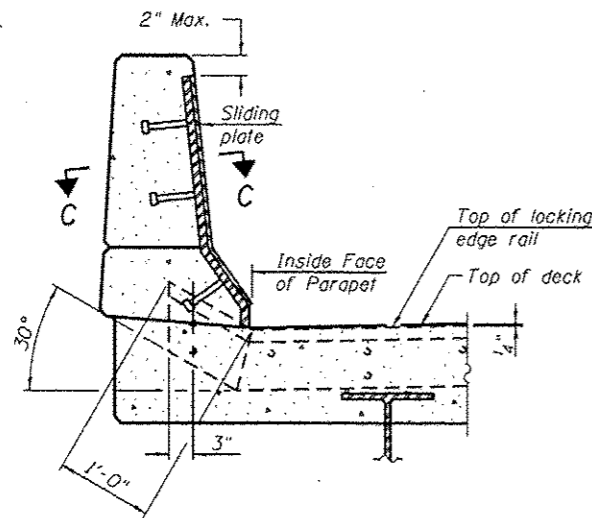
PLAN AT SLIDING PLATE



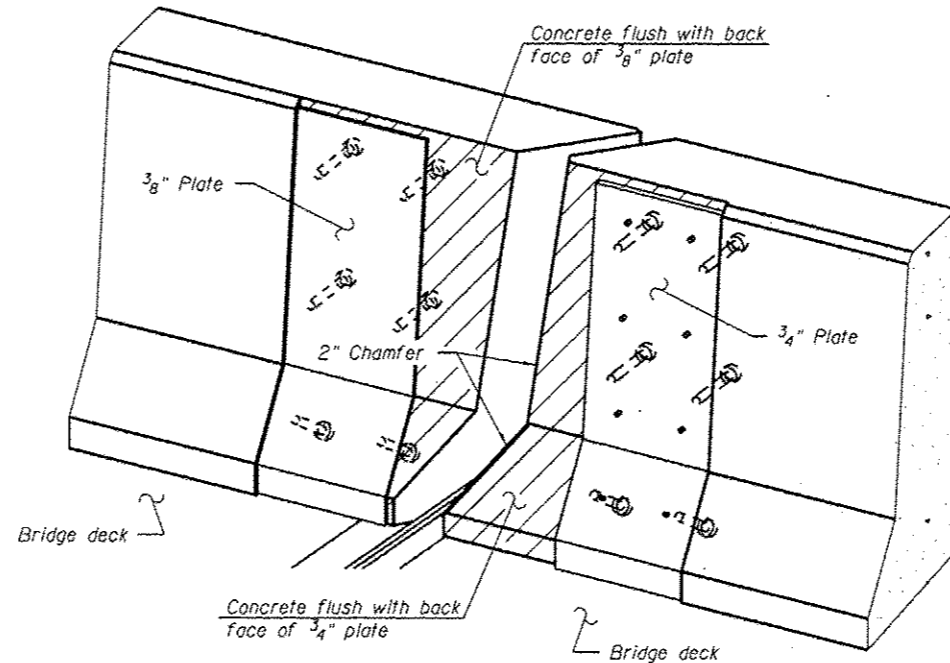
SECTION C-C

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

Notes:
 The manufacturer's recommended installation methods shall be followed.
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
 Parapet plates and anchorage studs included in the cost of "Modular Expansion Joint 9".
 Support Boxes shall be rigidly attached to cross frames and girders by adjustable brackets, stools or shims. Cost of attachment included in "Modular Expansion Joint 9".
 The number, location and orientation of support boxes shall be determined by the manufacturer. All boxes shall be located to miss the top flanges of the girders.
 Modular expansion joints shall be assembled in their final relative position with the ends in place for inspection and acceptance.
 Prior to the placement of the joint block-out, the Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the joint will be properly supported and that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement layout shall be submitted to the Engineer for approval.
 For location of Section A-A, see sheet 27 of 40.



SECTION B-B



TRIMETRIC VIEW
 (Showing back plates only)

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint 9"	Foot	72.0

S:\Projects\1400022-ETR_Roads_Rd over Kaskaskia River\09\09\16\2016\Modular Expansion Joint.dgn



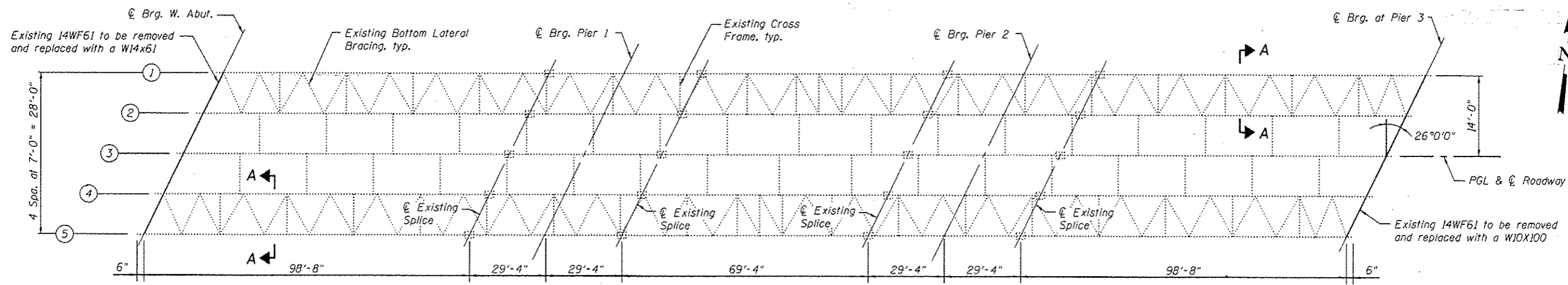
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

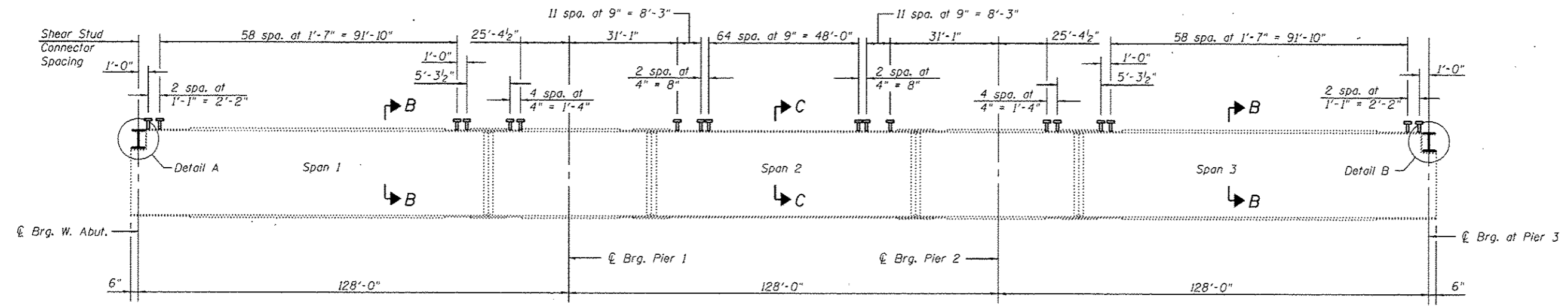
MODULAR EXPANSION JOINT DETAILS
 STRUCTURE NO. 079-0019

SHEET NO. 28 OF 40 SHEETS

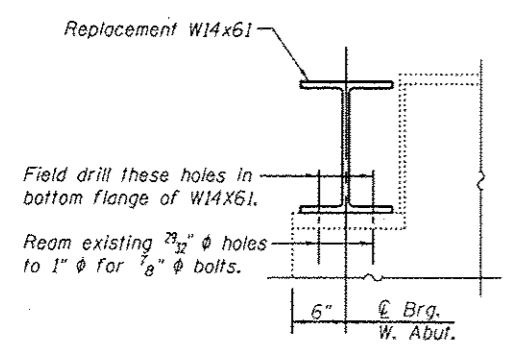
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				CONTRACT NO. 76H81
[ILLINOIS] FED. AID PROJECT				



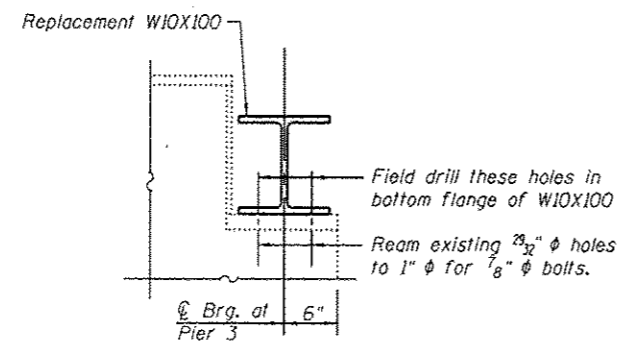
FRAMING PLAN



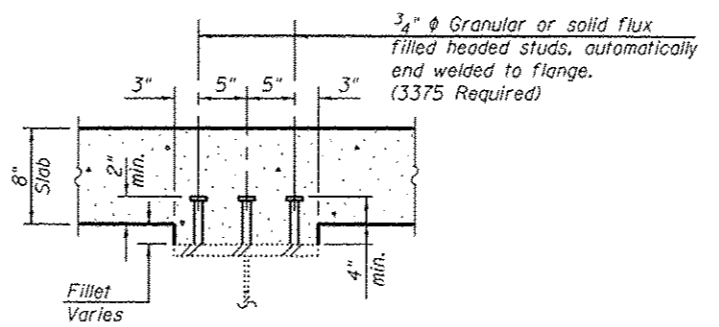
BEAM ELEVATION



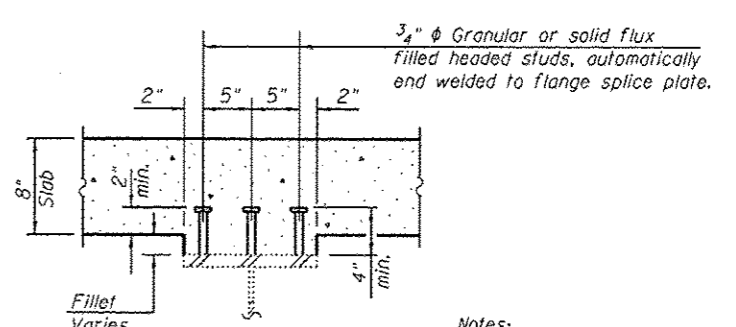
DETAIL A



DETAIL B



SECTION B-B

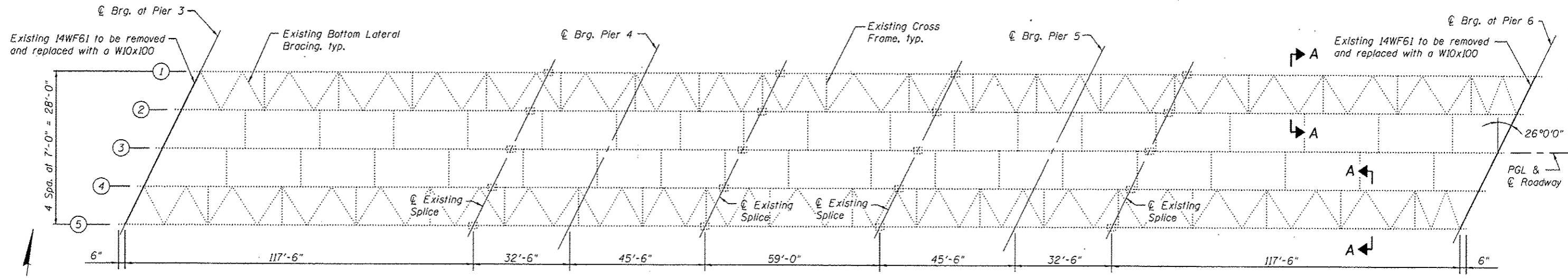


SECTION C-C

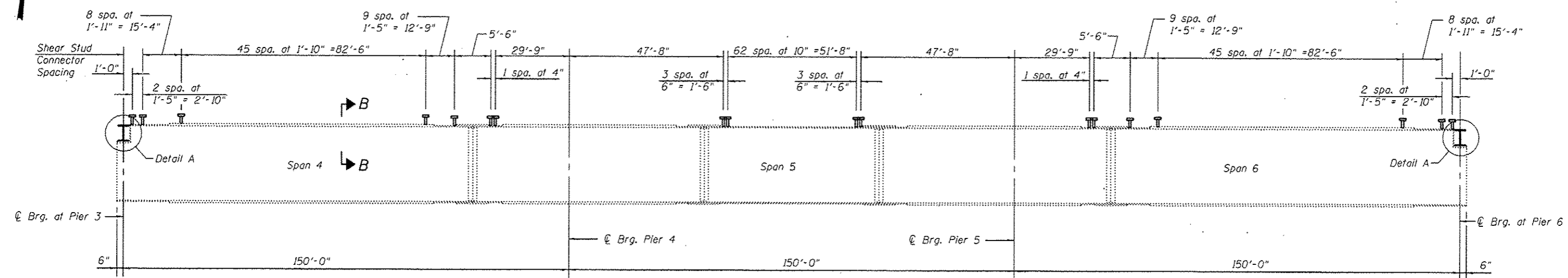
Notes:
See sheet 30 of 40 for Section A-A showing limits of painting on Girder Lines 1, 2, 4 & 5.
All holes to be drilled in field and reaming of existing holes to be included in Cost of "Furnishing and Erecting Structural Steel".

S:\Projects\10-0022-ENR_Roads_Rd_Over_Leastockle_River\Bridges\Structural Steel Unit 1.dwg

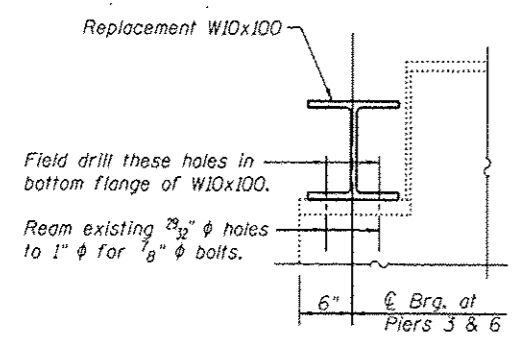
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SHEET NO. 29 OF 40 SHEETS						ILLINOIS FED. AID PROJECT				



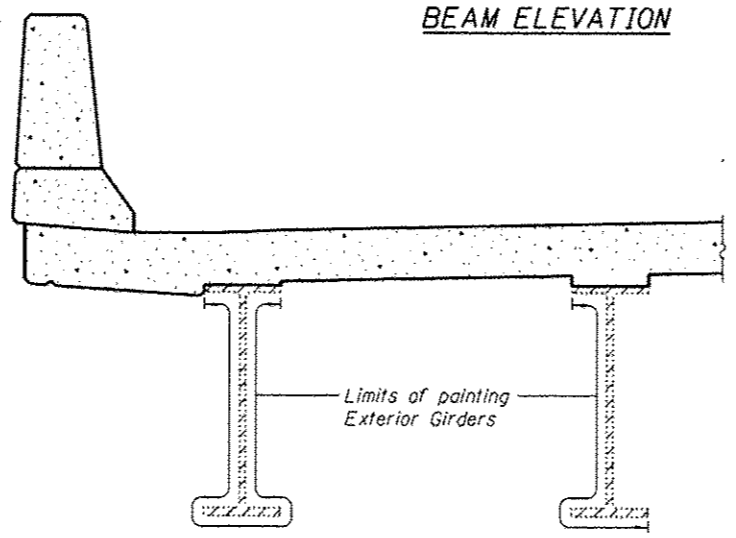
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BEAM ELEVATION

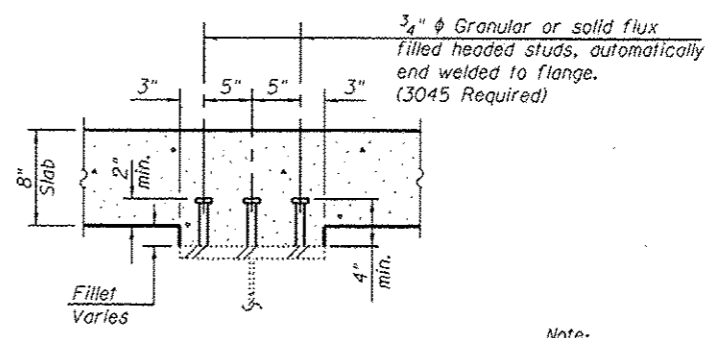


DETAIL A



SECTION A-A

(full length of girders)
 (See General Notes & Structural Repair Plans for additional Painting Requirements & Limits of additional Painting)

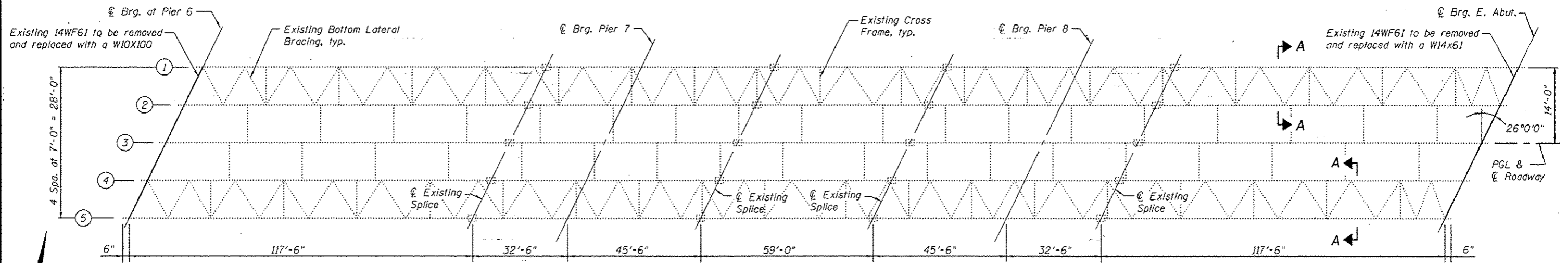


SECTION B-B

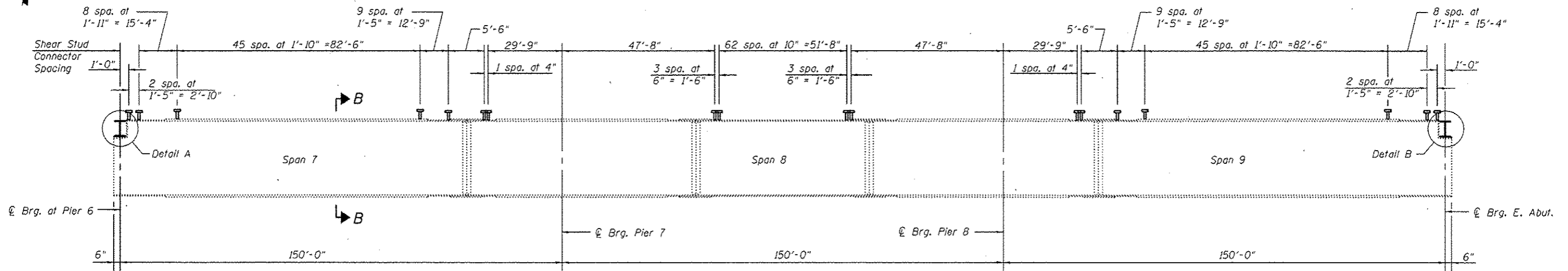
Note:
 All holes to be drilled in field and reaming of existing holes to be included in Cost of "Furnishing and Erecting Structural Steel". Existing Navigational Lighting Brackets shall be removed and replaced. Cost included with Furnishing and Erecting Structural Steel.
 For approximate locations of Navigational Lighting Brackets see Electrical Plans.
 For Navigational Lighting Bracket Details, see sheet 32 of 40.

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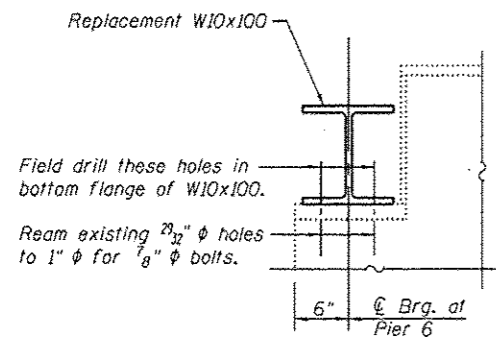
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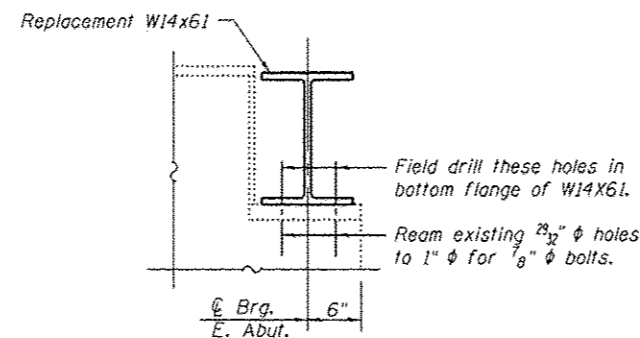
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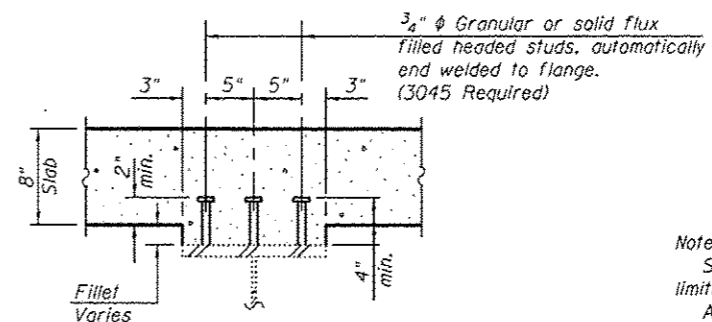
BEAM ELEVATION



DETAIL A



DETAIL B



SECTION B-B

Notes:
 See sheet 30 of 40 for Section A-A showing limits of painting on Girder Lines 1, 2, 4 & 5.
 All holes to be drilled in field and reaming of existing holes to be included in Cost of "Furnishing and Erecting Structural Steel".

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STATE OF ILLINOIS
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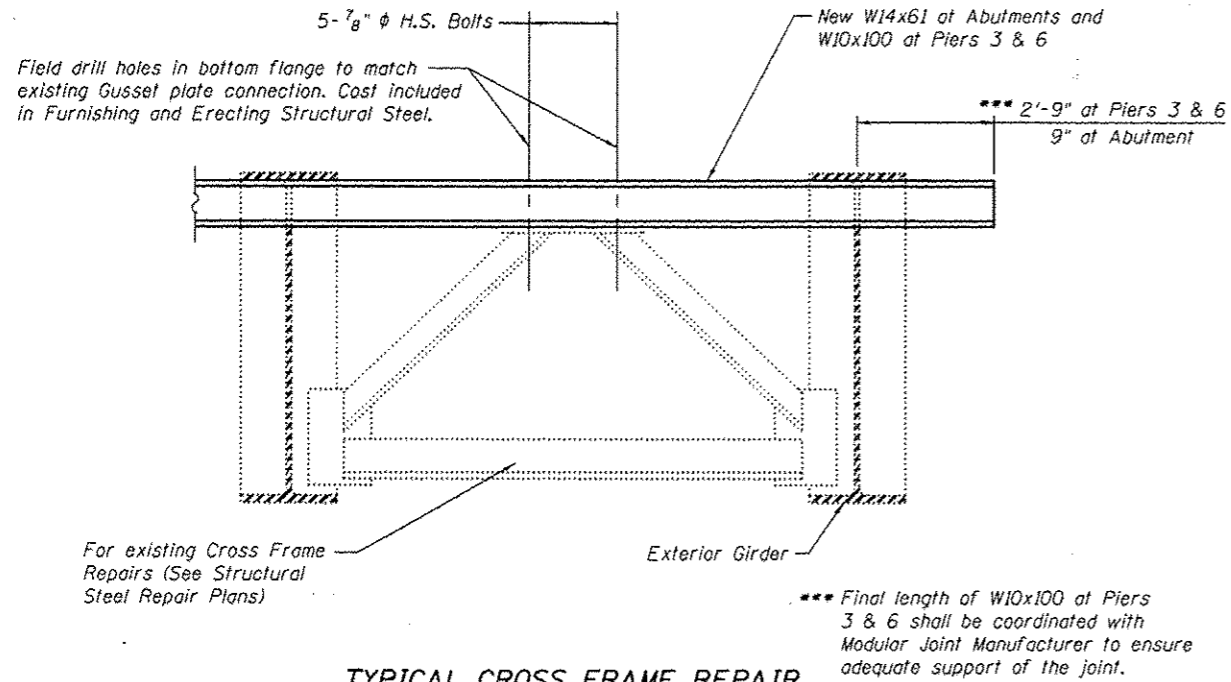
STRUCTURAL STEEL DETAILS UNIT 3
 STRUCTURE NO. 079-0019

SHEET NO. 31 OF 40 SHEETS

F.A.S. R/E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	63

CONTRACT NO. 76H81
 ILLINOIS FED. AID PROJECT

UNIT 1



TYPICAL CROSS FRAME REPAIR

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in^4 and in^3).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in^4 and in^3).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in^4 and in^3).

Z: Plastic Section Modulus of the steel section in non-composite areas (in^3).

Q : Un-factored non-composite dead load (kips/ft.).

M_Q : Un-factored moment due to non-composite dead load (kip-ft.).

s_Q : Un-factored long-term composite (superimposed) dead load (kips/ft.).

M_{sQ} : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L : Un-factored live load moment (kip-ft.).

M_I : Un-factored moment due to impact (kip-ft.).

M_o : Factored design moment (kip-ft.).
 $1.3 [M_Q + M_{sQ} + \frac{5}{8} (M_L + M_I)]$

M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M_Q + M_{sQ} + \frac{5}{8} (M_L + M_I)$

f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M_Q + M_{sQ} + \frac{5}{8} (M_L + M_I)]$

VR: Maximum $\frac{1}{4}$ impact shear range within the composite portion of the span for stud shear connector design (kips).

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Piers 1 & 2	0.5 Sp. 2
I_s	(in^4)	62789	74757	27927
$I_c(n)$	(in^4)	120908		71503
$I_c(3n)$	(in^4)	91886		53005
S_s	(in^3)	1823	2151	832
$S_c(n)$	(in^3)	2233		1226
$S_c(3n)$	(in^3)	2073		1107
Z	(in^3)			
Q	(k/ft)	0.97	1.20	0.92
M_Q	(k)	1259	1985	276
s_Q	(k/ft)	0.25		0.25
M_{sQ}	(k)	328		116
M_L	(k)	1106	944	793
M_I	(k)	219	187	157
$s_3 [M_L + I]$	(k)	2208	1885	1583
M_o	(k)	4934	5031	2568
M_u	(k)	6236		3971
f_s non-comp	(ksi)	8.29	11.08	3.98
f_s comp	(ksi)	1.90		1.26
$f_s s_3 [M_L + M_I]$	(ksi)	11.87	10.52	15.49
f_s (Overload)	(ksi)	22.05	21.59	20.73
f_s (Total)	(ksi)		28.07	
VR	(k)	61		63

INTERIOR GIRDER REACTION TABLE				
		W. Abut.	Piers 1 & 2	Pier 3
RQ	(k)	62.0	167.3	62.0
R ₄	(k)	46.7	77.3	46.7
R ₁	(k)	9.2	15.3	9.2
R _{Total}	(k)	117.2	259.9	117.2

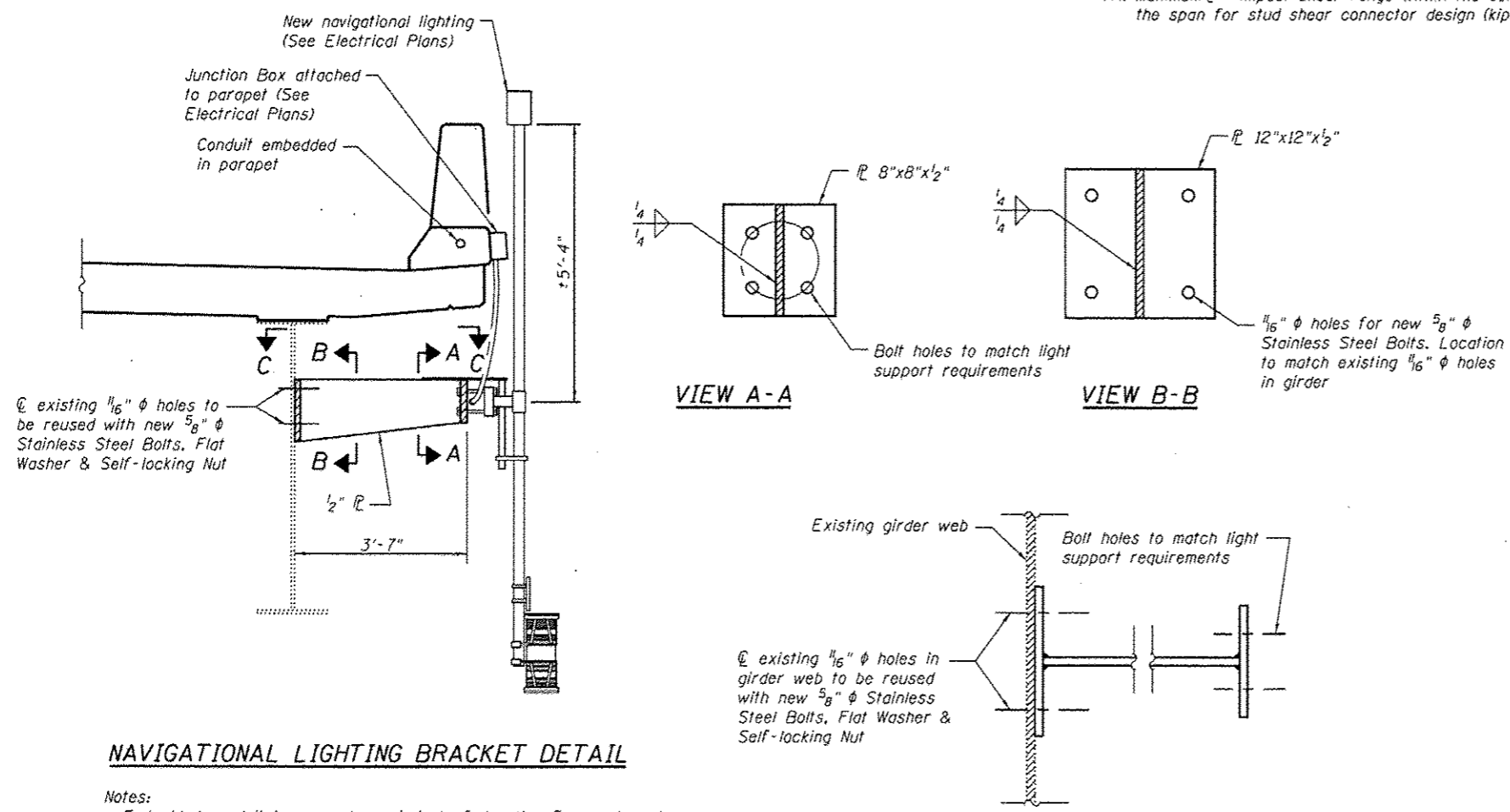
* Compact section
 ** Braced non-compact and partially braced section

UNITS 2 & 3

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 4 & 7 or 0.6 Sp. 6 & 9	Piers 4, 5, 7 & 8	0.5 Sp. 5 & 8
I_s	(in^4)	84487	104368	37216
$I_c(n)$	(in^4)	150699		86982
$I_c(3n)$	(in^4)	115957		64655
S_s	(in^3)	2414	2940	1103
$S_c(n)$	(in^3)	2851		1517
$S_c(3n)$	(in^3)	2666		1381
Z	(in^3)			
Q	(k/ft)	1.03	1.25	0.97
M_Q	(k)	1842	2885	376
s_Q	(k/ft)	0.25		0.25
M_{sQ}	(k)	445		148
M_L	(k)	1347	1288	939
M_I	(k)	245	234	171
$s_3 [M_L + I]$	(k)	2653	2529	1850
M_o	(k)	6422	7038	3086
M_u	(k)	7917		4830
f_s non-comp	(ksi)	9.16	11.78	4.09
f_s comp	(ksi)	2.00		1.29
$f_s s_3 [M_L + M_I]$	(ksi)	11.17	10.32	14.63
f_s (Overload)	(ksi)	22.33	22.10	20.01
f_s (Total)	(ksi)		28.73	
VR	(k)	65		67

INTERIOR GIRDER REACTION TABLE				
		Pier 6 or E. Abut.	Piers 4 & 5 or 7 & 8	Pier 3 or 6
RQ	(k)	76.3	205.7	76.3
R ₄	(k)	47.2	88.2	47.2
R ₁	(k)	8.6	16.1	8.6
R _{Total}	(k)	132.1	310.0	132.1

* Compact section
 ** Braced non-compact and partially braced section



NAVIGATIONAL LIGHTING BRACKET DETAIL

Notes:
 Embedded conduit in parapet are in/out of Junction Boxes at each Lighting Bracket
 All Lighting Brackets shall be fabricated after Field Measurements to insure proper alignment of Lighting Fixture Mounting Plate and Free Pivoting of Lamp Support Tube.

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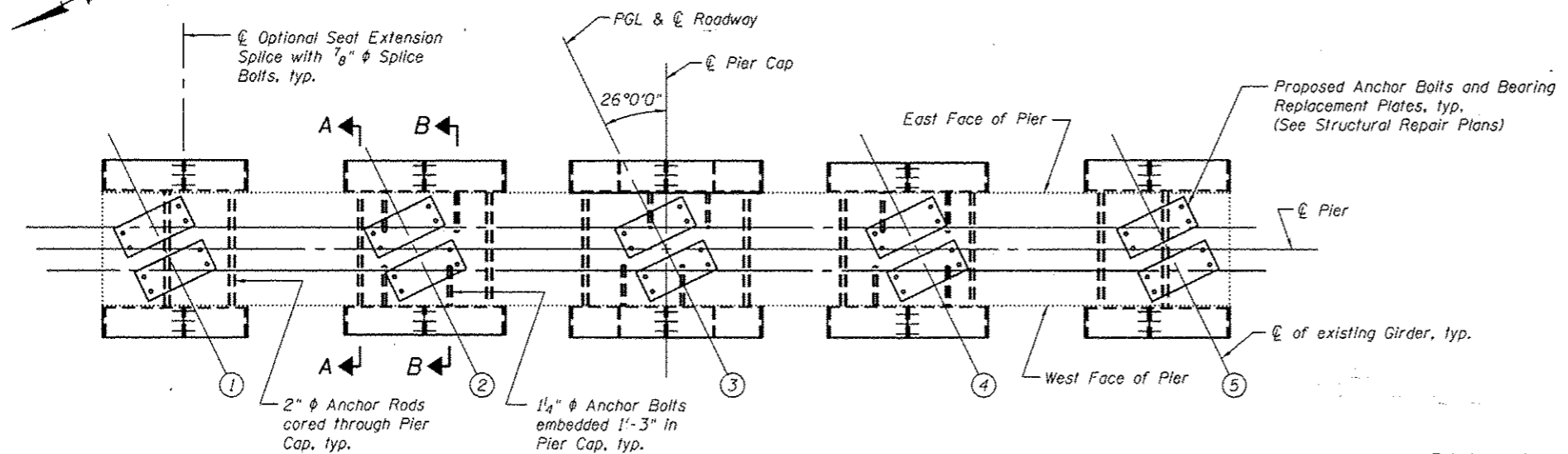
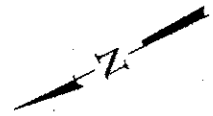


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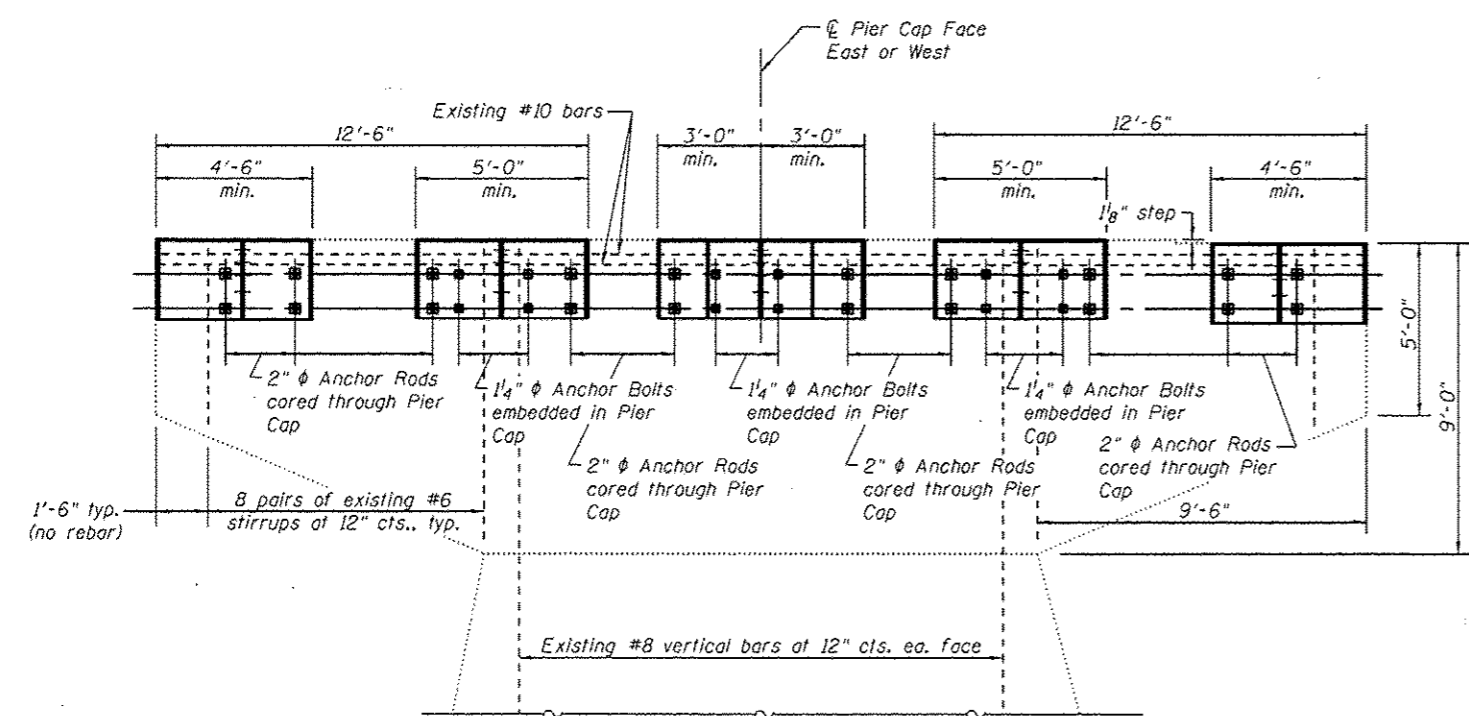
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
 STRUCTURE NO. 079-0019
 SHEET NO. 32 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 64
CONTRACT NO. 76H81				
[ILLINOIS] FED. AID PROJECT				



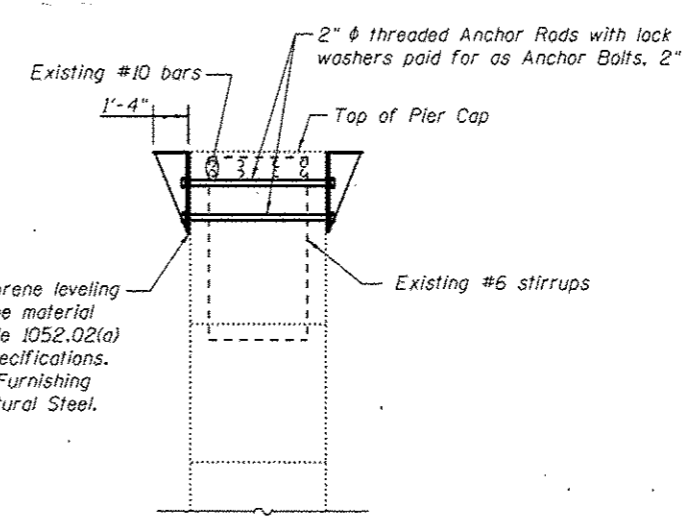
PLAN



ELEVATION

West Face (Looking East)
East Face (Looking West)
All dimensions taken from face of Pier Cap

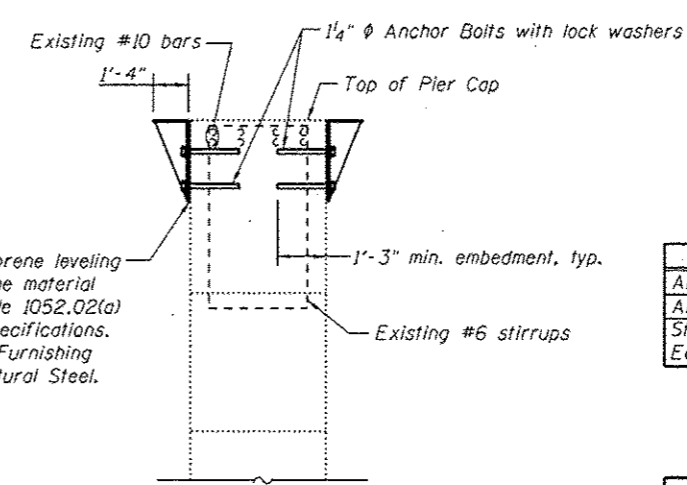
Notes:
Core holes and anchor bolts to miss existing reinforcement, existing anchor bolts and new anchor bolts.
Anchor Bolts shall be ASTM F1554 Grade 55 of diameters specified.
Prior to ordering materials for the seat extensions the core holes and anchor holes on the pier cap shall be located. The contractor shall coordinate the location of the pier cap holes on the steel seat extensions.
No core holes or anchoring is allowed in unreinforced portions of the pier cap. The existing rebar as shown has been taken from existing plan data. The edge of core holes or anchor holes shall not be less than 1/2 inches from the edge of an existing rebar or proposed anchor bolt locations.
All bolts, nuts and washers shall be galvanized according to section 1006.08 of the standard specifications.
The cost of existing rebar locating, coring and anchor installation shall be included with anchor bolts of the diameters specified.
Spalling of concrete pier caps due to the coring of holes shall be repaired as "Structural Repair of Concrete (Depth Equal or Less than 5 Inches)". The quantity indicated on the total Bill of Materials is estimated.
The installation of the seismic seat extensions shall be paid for as "Furnishing and Erecting Structural Steel".
See Special Provisions for Installation of Seat Extensions for additional requirements.



SECTION A-A

(Typical Section with 2" Anchor Rods cored through Pier Cap)

1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Furnishing and Erecting Structural Steel. (typ. ea. face)



SECTION B-B

(Typical Section with 1 1/4" Anchor Bolts embedded in Pier Cap)

1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Furnishing and Erecting Structural Steel. (typ. ea. face)

BILL OF MATERIAL - PIER 3

Item	Unit	Total
Anchor Bolts, 1 1/4"	Each	24
Anchor Bolts, 2"	Each	20
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	164.5

BILL OF MATERIAL - PIER 6

Item	Unit	Total
Anchor Bolts, 1 1/4"	Each	24
Anchor Bolts, 2"	Each	20
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	164.5

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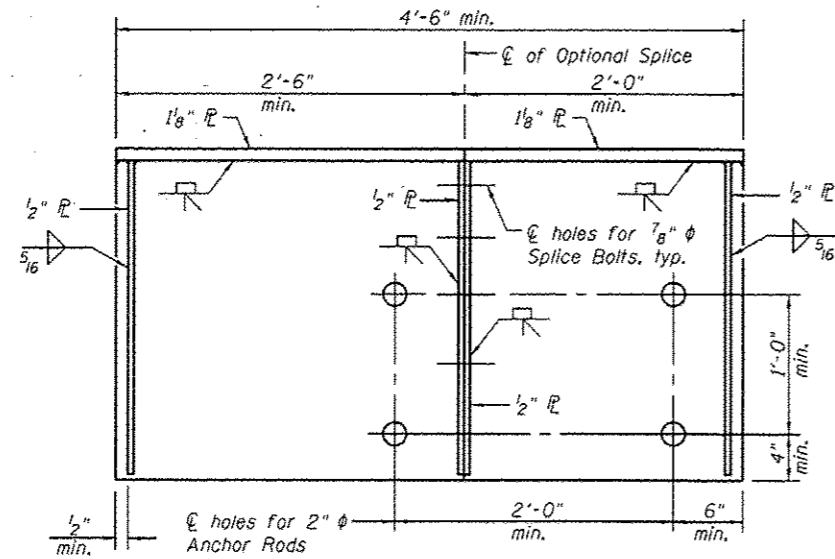


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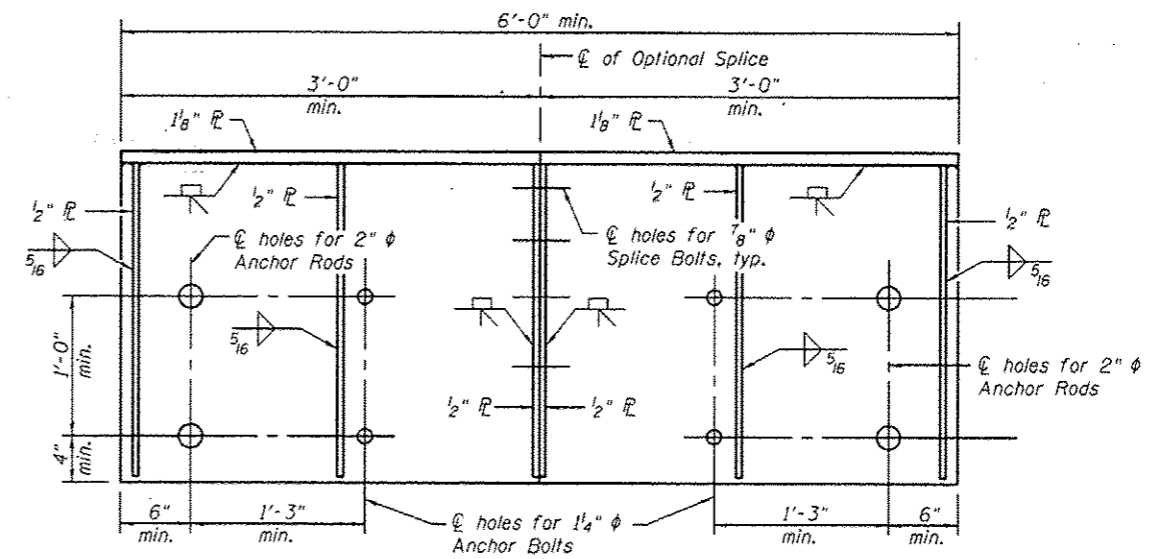
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SEISMIC RETROFIT DETAILS PIERS 3 & 6
STRUCTURE NO. 079-0019**

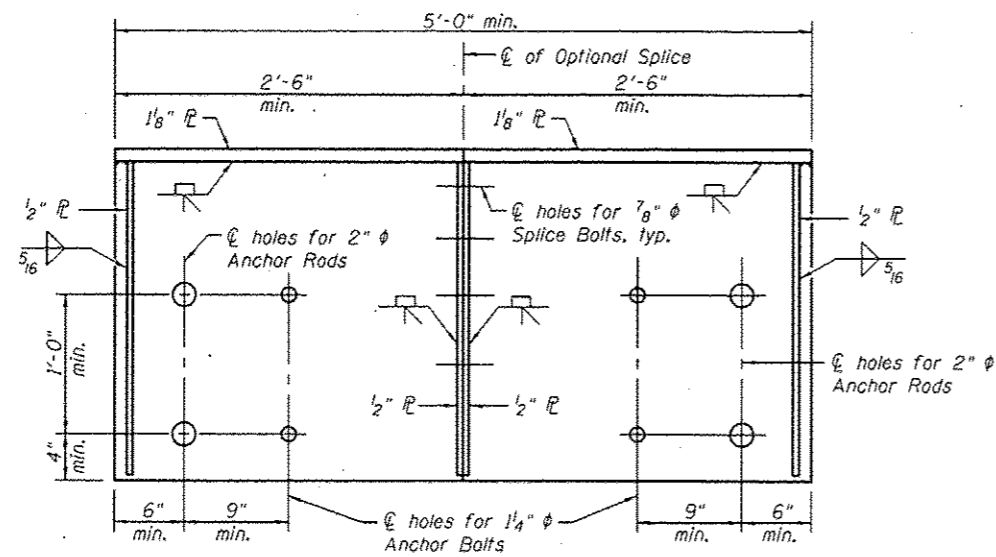
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858	12-B-1	RANDOLPH	90	65
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



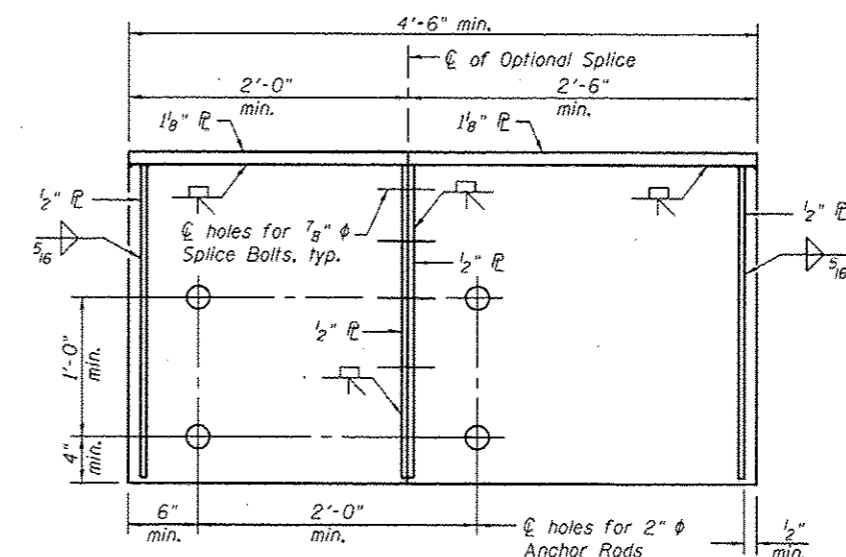
SEAT EXTENSION GIRDER 1 WEST FACE & GIRDER 5 EAST FACE



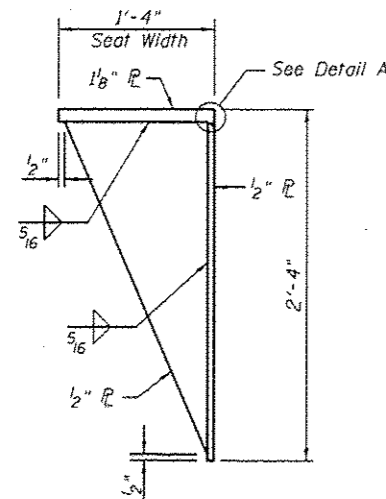
SEAT EXTENSION GIRDER 3



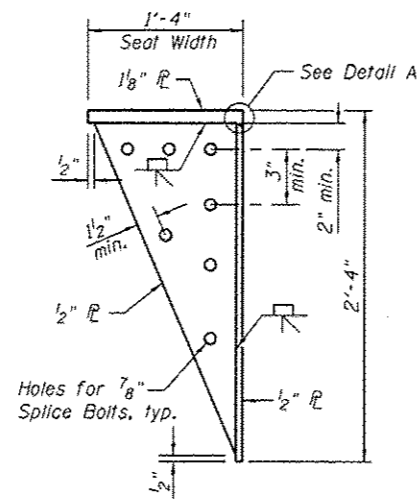
SEAT EXTENSION GIRDERS 2 & 4



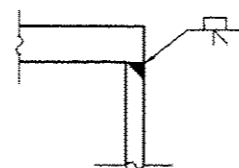
SEAT EXTENSION GIRDER 5 WEST FACE & GIRDER 1 EAST FACE



STANDARD GUSSET
(side view)



SPLICE GUSSET
(side view)



DETAIL A

Notes:

- Seismic Seat Extensions shall be paid for as "Furnishing and Erecting Structural Steel".
- Structural steel for the seat extensions shall be hot-dipped galvanized after fabrication according to AASHTO M-111. Cost included with "Furnishing and Erecting Structural Steel".
- The Fabricator shall adjust the hole diameters as needed to accommodate galvanizing.
- The Fabricator shall coordinate final locations of anchor bolt and anchor rod holes with the Contractor's "as measured" field locations of holes and anchor holes on the pier cap.
- The Contractor may omit the as detailed splice with a single unit seat extension of equal length for the minimum seat width detailed. If omitted, a standard gusset plate shall replace the splice gusset combination.
- Shop drawings for the steel extensions are required according to Section 505.03 of the Standard Specifications.
- Each oversized hole for the optional splice shall receive two (2) hardened washers.
- Location of optional splice may be modified as needed for fabrication and required bolt clearances.

BILL OF MATERIAL - PIER 3

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pound	6850

BILL OF MATERIAL - PIER 6

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pound	6850

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Illinois Design Firm Number 104.001670
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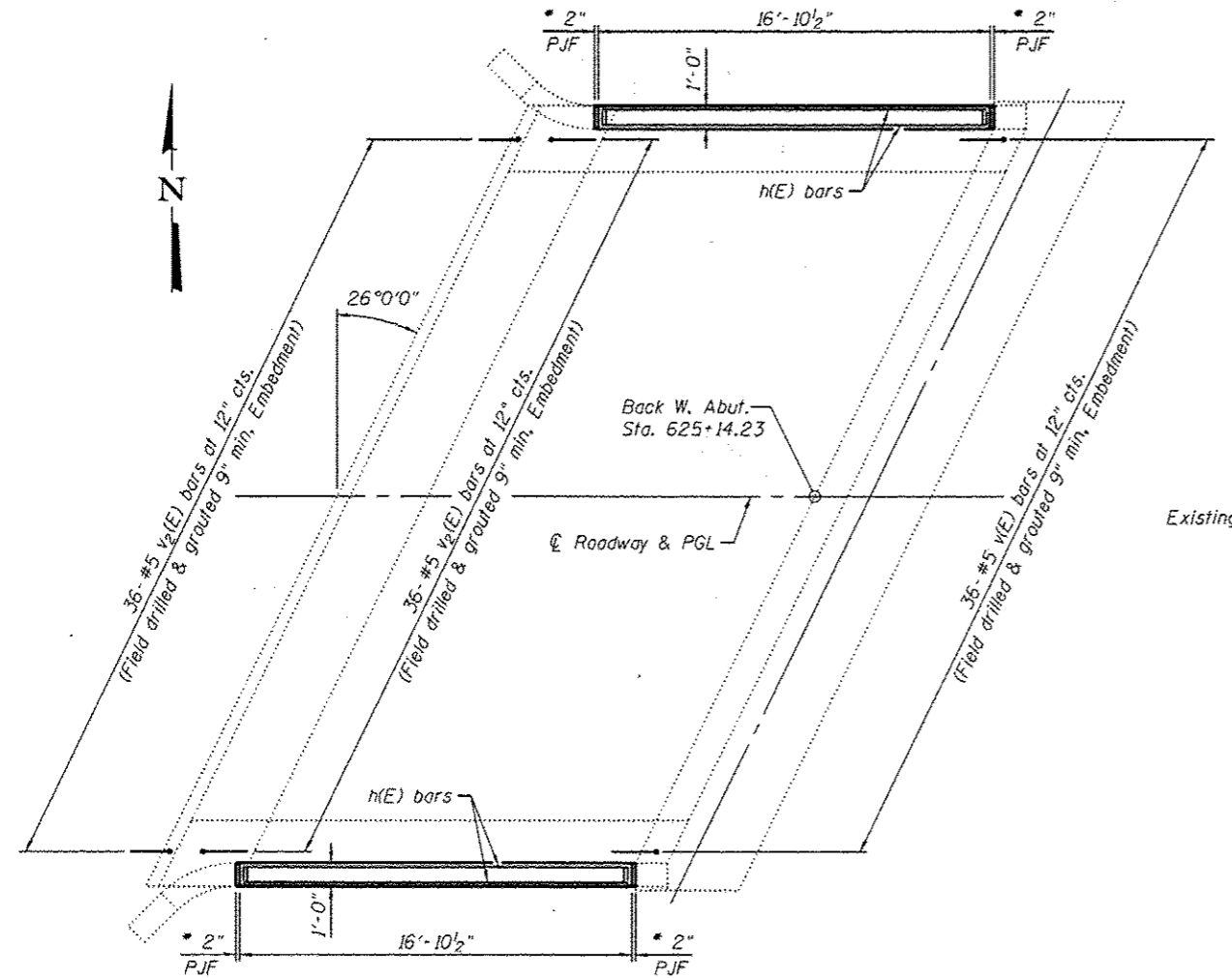
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SEISMIC RETROFIT DETAILS PIERS 3 & 6
STRUCTURE NO. 079-0019

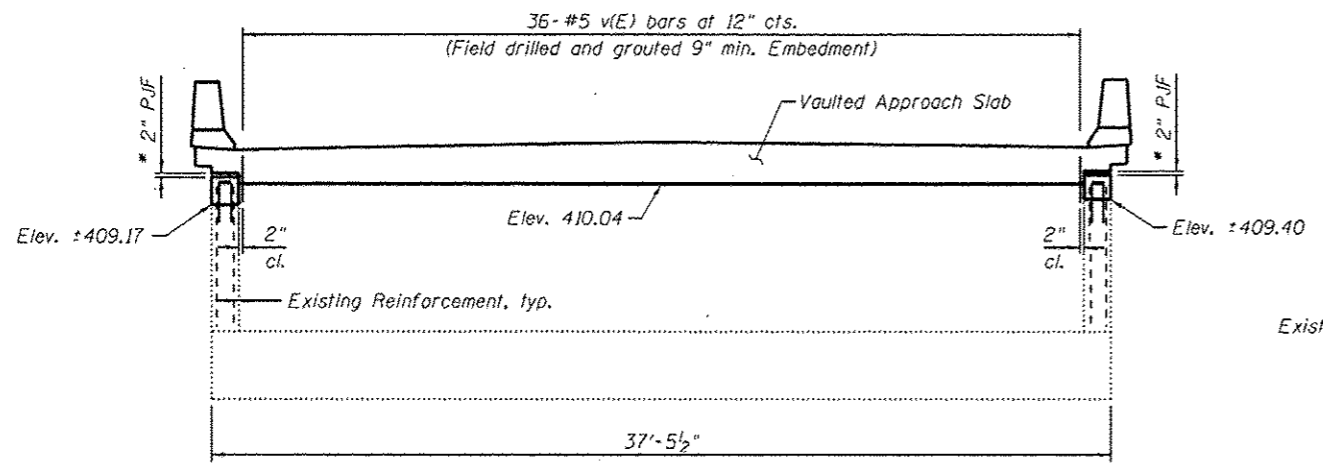
SHEET NO. 34 OF 40 SHEETS

F.A.S. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	66

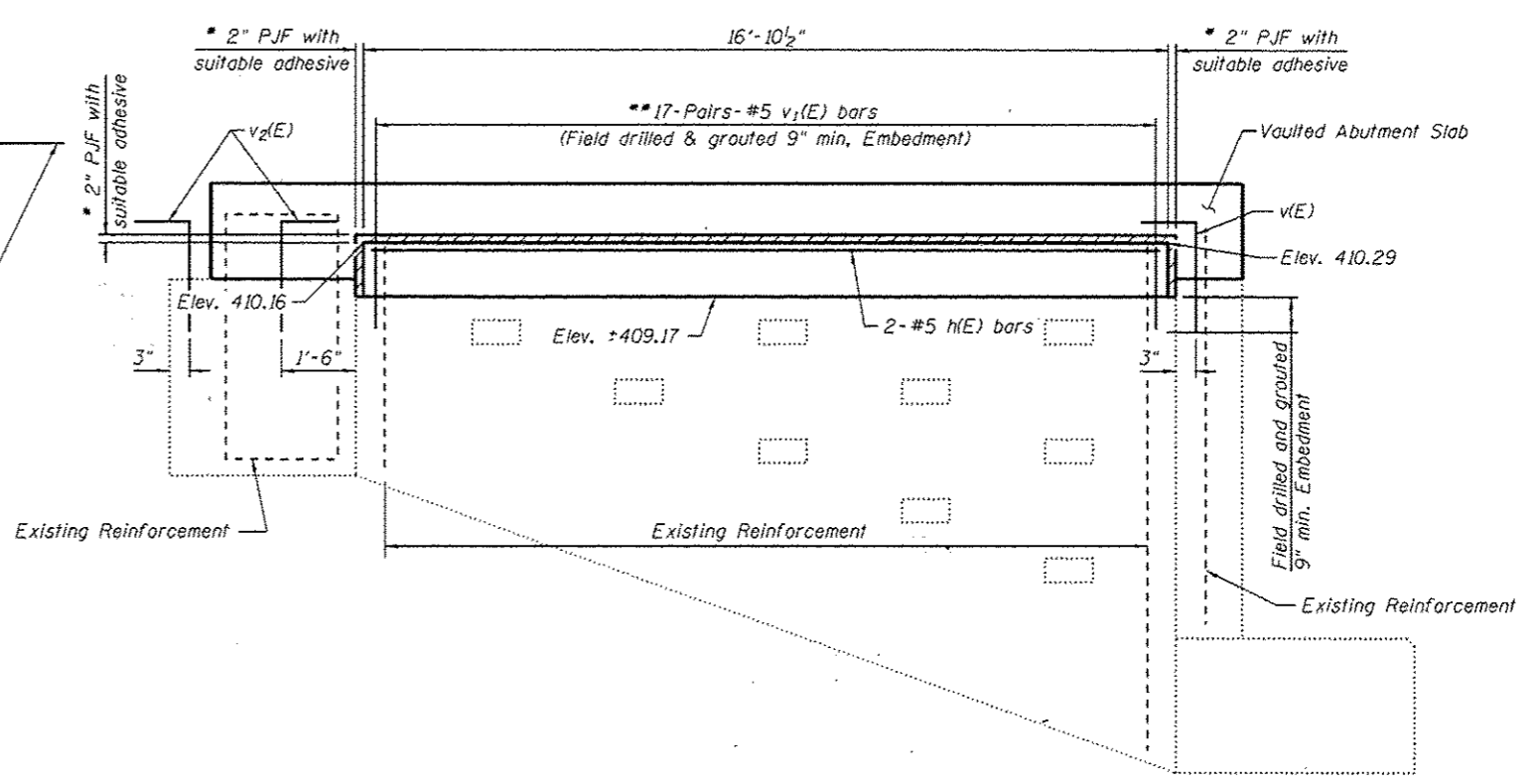
CONTRACT NO. 76H81
ILLINOIS FED. AID PROJECT



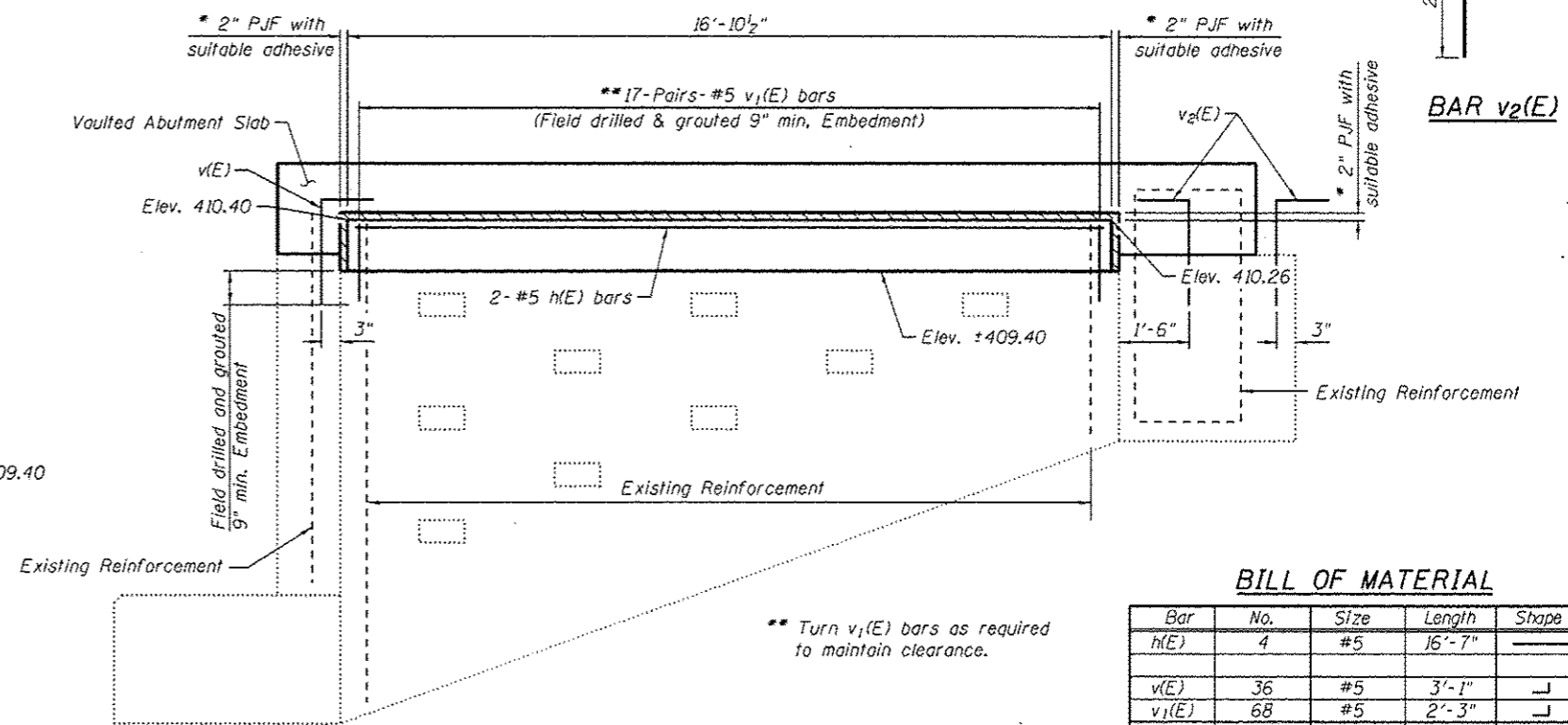
WEST VAULTED ABUTMENT PLAN



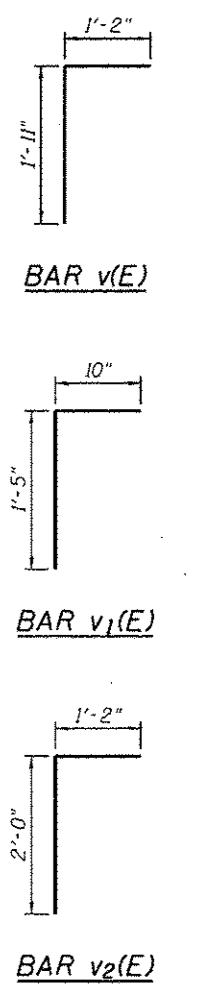
WEST ABUTMENT ELEVATION



SOUTH WING WALL ELEVATION



NORTH WING WALL ELEVATION



Notes:
 See sheets 22 and 23 of 40 for Vaulted Abutment Slab details.
 Cost of P/JF included with cost of Concrete structures.
 Spalling of the existing concrete walls and backwall during construction shall be repaired as "Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)". The quantity indicated in the Bill of Material is estimated.
 Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

* A suitable adhesive must be compatible with preformed joint filler material and concrete. Surface preparation shall be conducted in accordance with the manufacturer's guidelines.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
h(E)	4	#5	16'-7"	—	
v(E)	36	#5	3'-1"	┘	
v ₁ (E)	68	#5	2'-3"	┘	
v ₂ (E)	72	#5	3'-2"	┘	
Reinforcement Bars, Epoxy Coated				Pound	590
Concrete Structures				Cu. Yds.	1.3
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)				Sq. Ft.	42

** Turn v₁(E) bars as required to maintain clearance.

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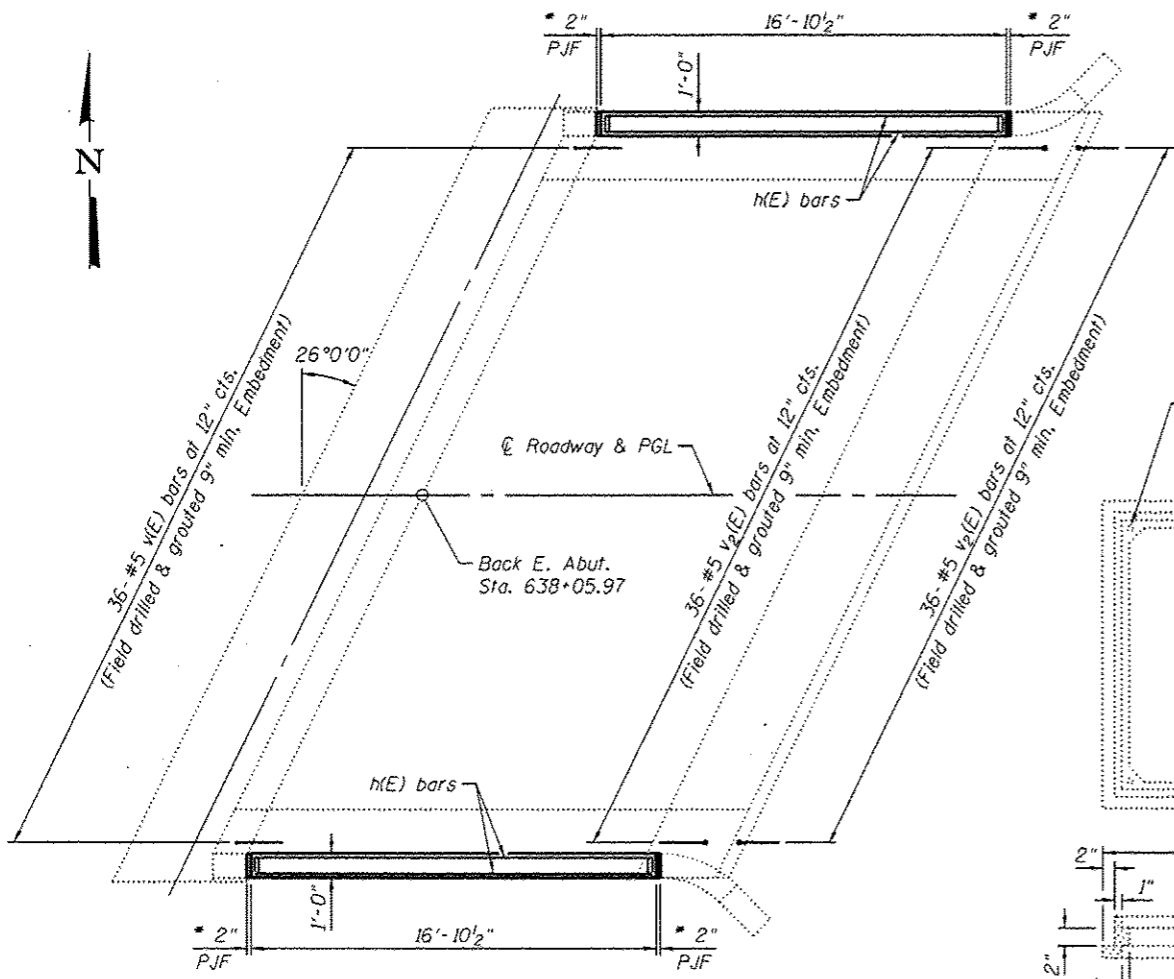
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WEST VAULTED ABUTMENT DETAILS
 STRUCTURE NO. 079-0019**

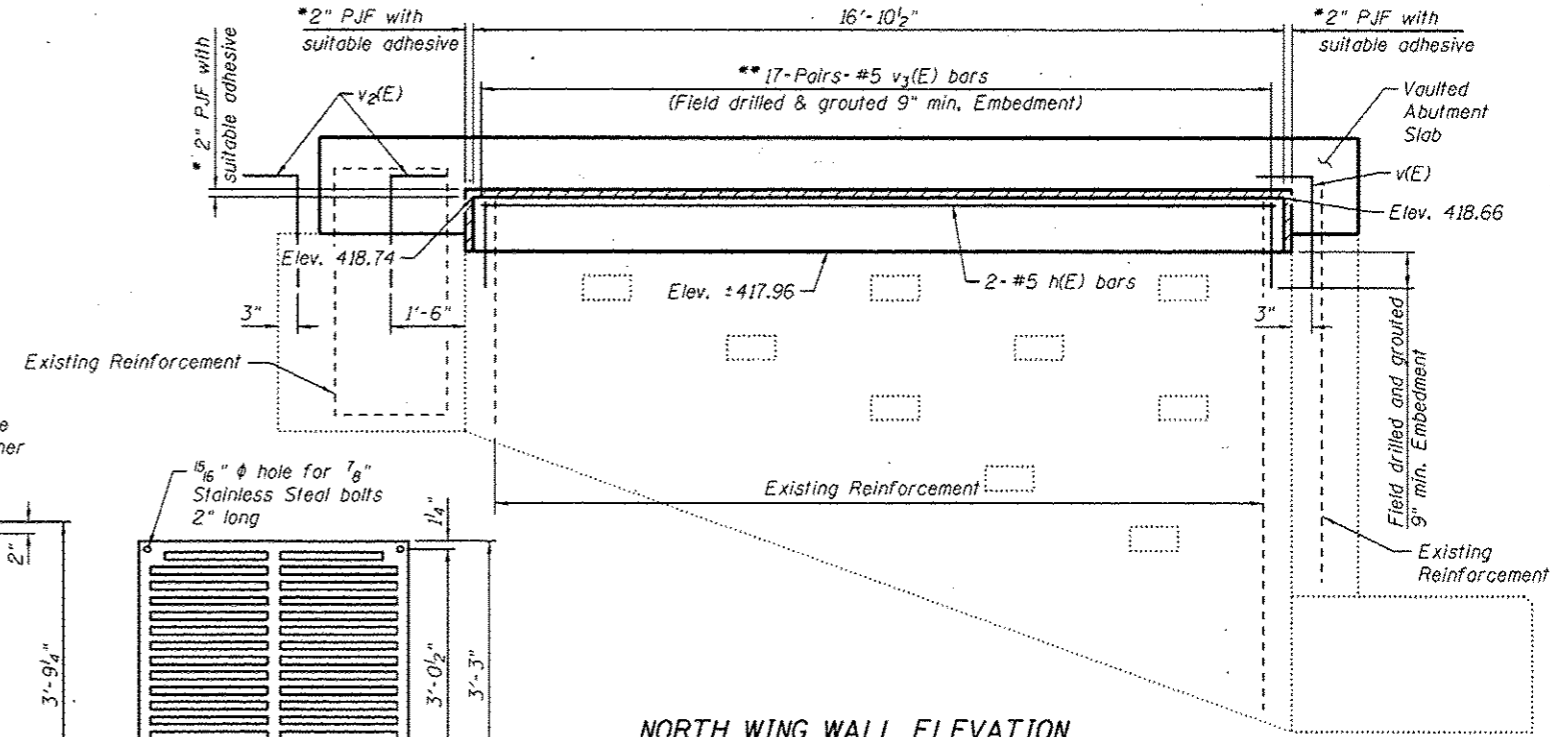
SHEET NO. 35 OF 40 SHEETS

F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 67
				CONTRACT NO. 76H81

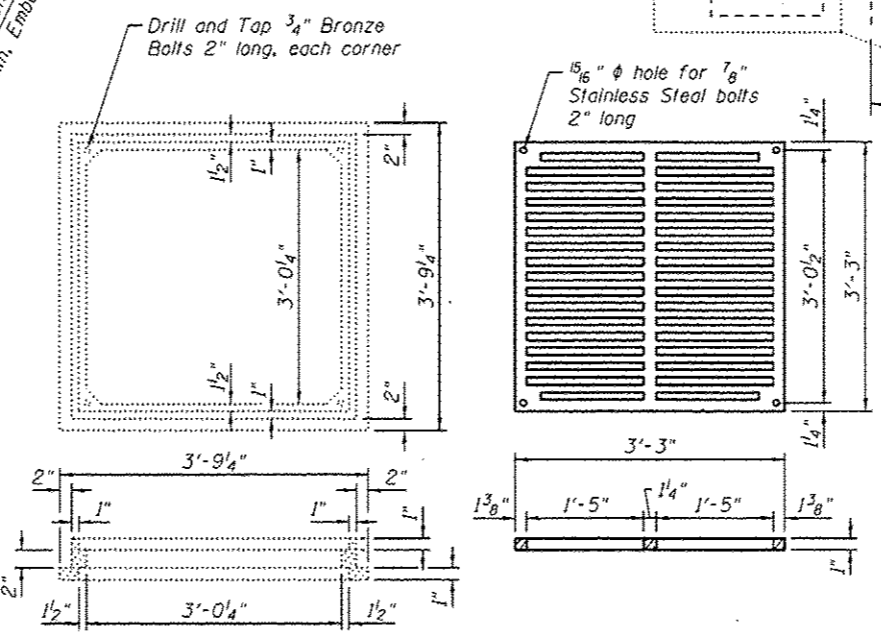
ILLINOIS FED. AID PROJECT



EAST VAULTED ABUTMENT PLAN

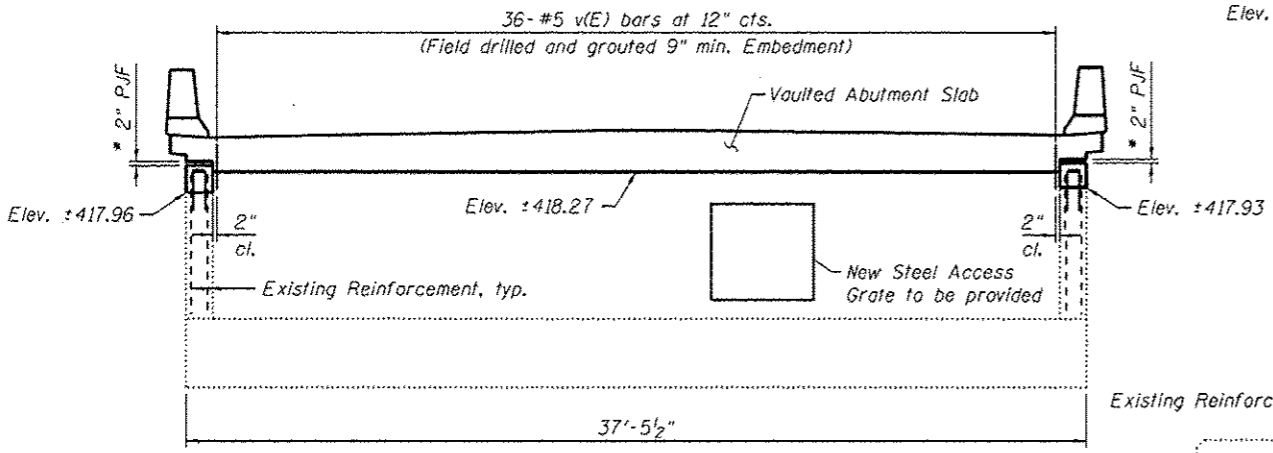


NORTH WING WALL ELEVATION

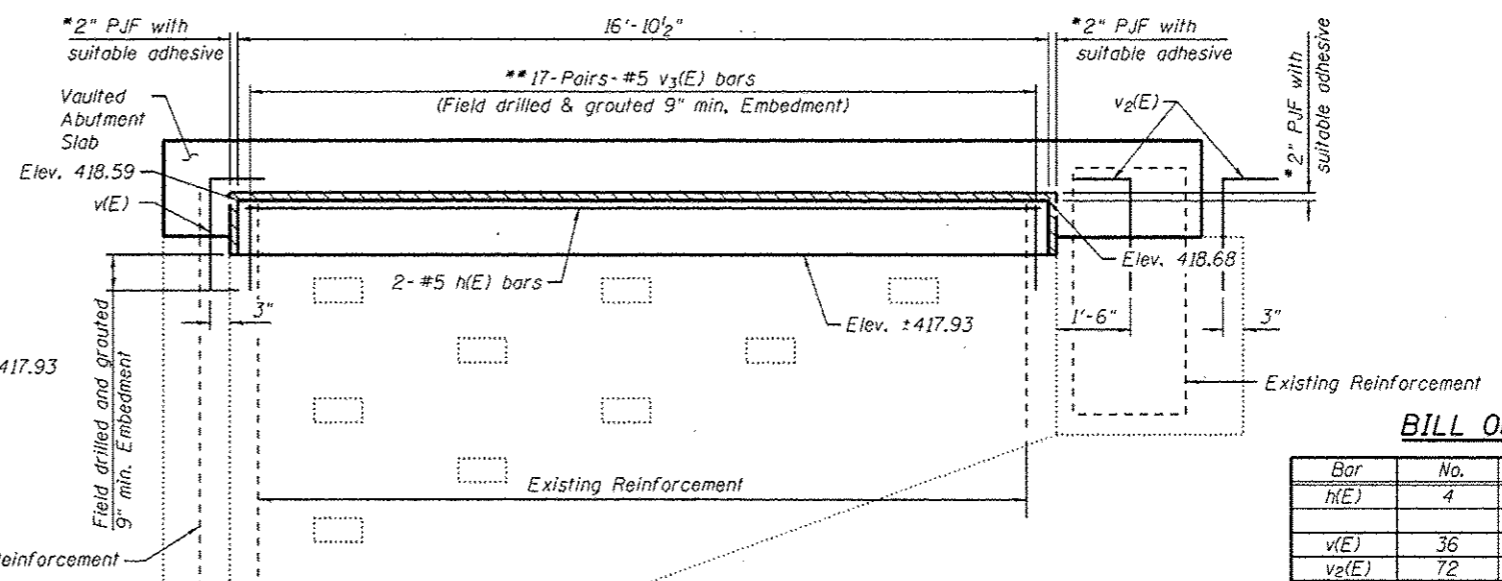


DETAIL OF STEEL ACCESS GRATE
(Cost included with Concrete Structures)

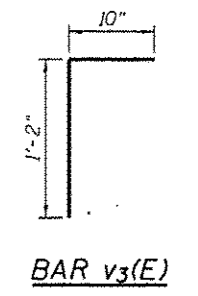
* A suitable adhesive must be compatible with preformed joint filler material and concrete. Surface preparation shall be conducted in accordance with the manufacturer's guidelines.
 ** Turn v3(E) bars as required to maintain clearance.
 Notes:
 See sheets 22 and 23 of 40 for Vaulted Abutment Slab details.
 Cost of P/J/F included with cost of Concrete Structures.
 See sheet 35 of 40 for additional Bar Bends.
 Spalling of the existing concrete walls and backwall shall be repaired as "Structural Repair of Concrete (Depth Equal to or Less than 5 Inches). The quantity indicated in the Bill of Material is estimated.
 Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.



EAST ABUTMENT ELEVATION



SOUTH WING WALL ELEVATION



BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
h(E)	4	#5	16'-7"	—	
v(E)	36	#5	3'-1"	┘	
v2(E)	72	#5	3'-2"	┘	
v3(E)	68	#5	2'-0"	┘	
Reinforcement Bars, Epoxy Coated				Pound	570
Concrete Structures				Cu. Yds.	0.9
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)				Sq. Ft.	42

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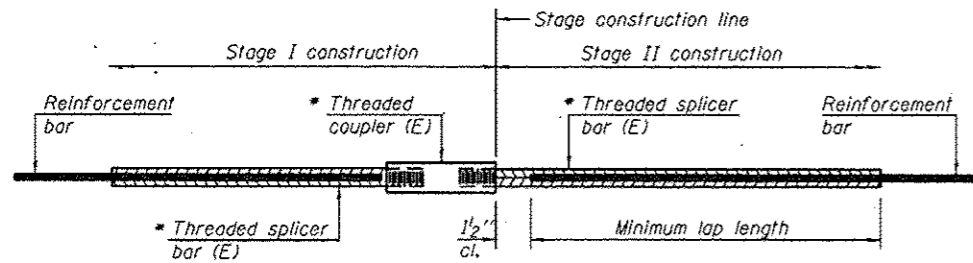
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST VAULTED ABUTMENT DETAILS
STRUCTURE NO. 079-0019

SHEET NO. 36 OF 40 SHEETS

F.A.S. RTE. 85B	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 68
CONTRACT NO. 76H81			ILLINOIS FED. AID PROJECT	



STANDARD BAR SPLICER ASSEMBLY

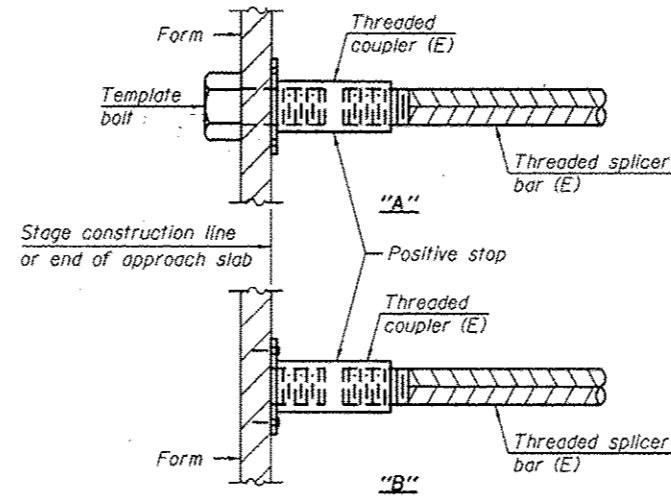
Bar size to be spliced	Minimum Lap Lengths					
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

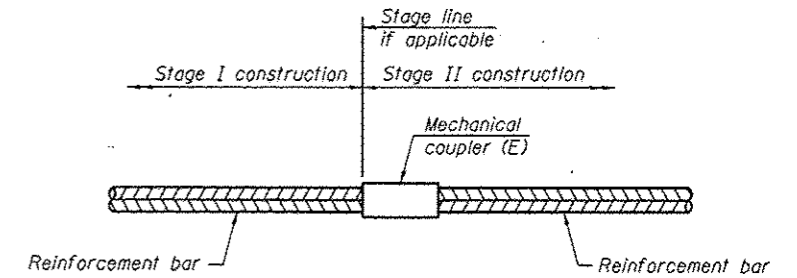
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
W. Appr. Slab	#4	26	TABLE 5
E. Appr. Slab	#4	26	TABLE 5



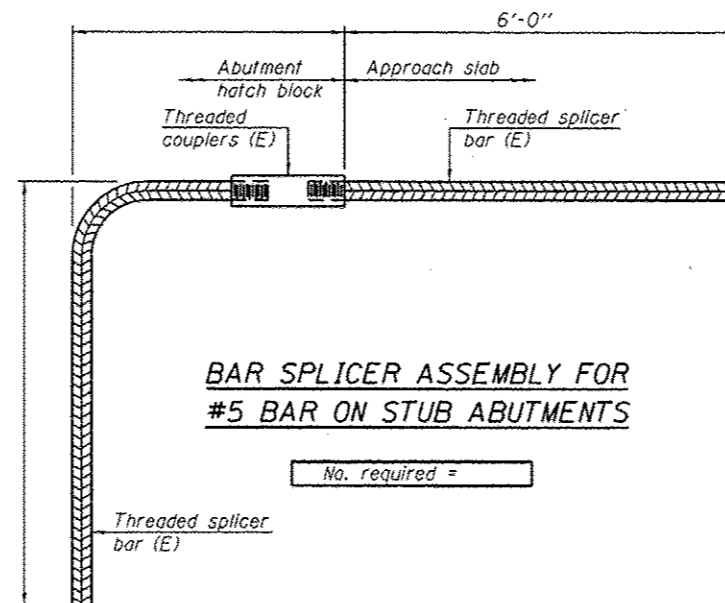
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

8-31-12



USER NAME = db0006	DESIGNED - JD	REVISED -
Illinois Design Firm Number 184.001670	CHECKED - BB	REVISED -
PLOT SCALE =	DRAWN - WS	REVISED -
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DEPARTMENT OF TRANSPORTATION

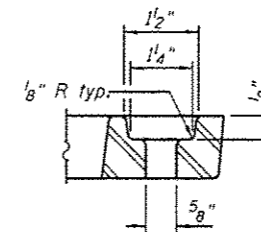
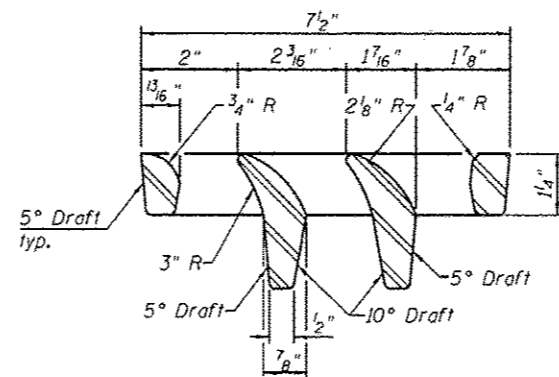
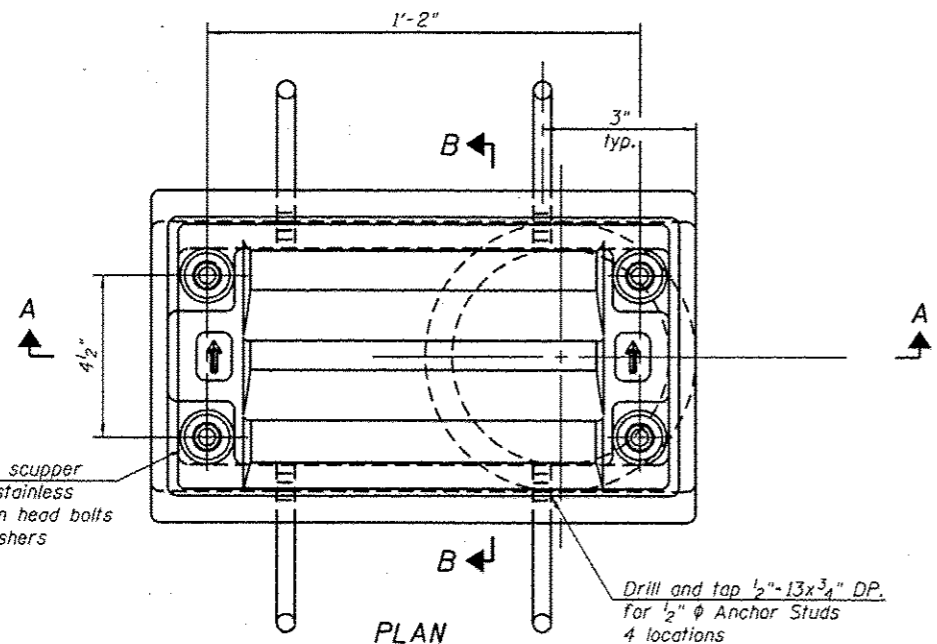
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 079-0019

SHEET NO. 37 OF 40 SHEETS

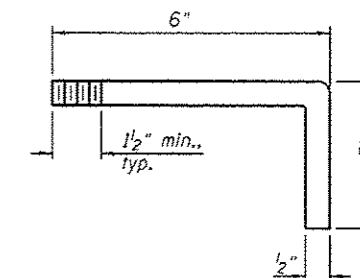
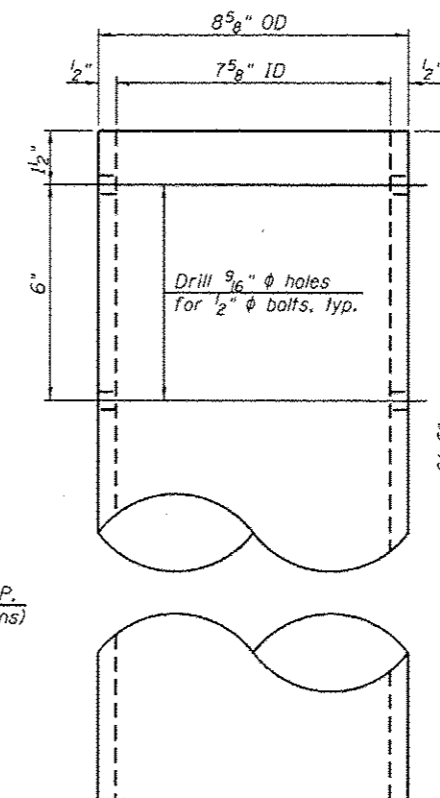
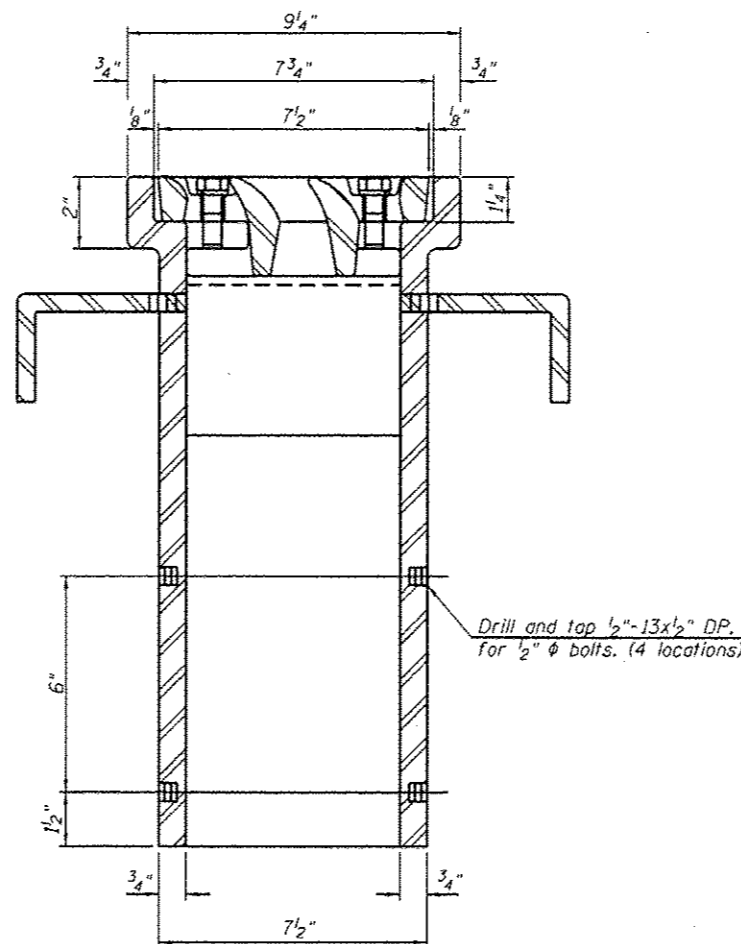
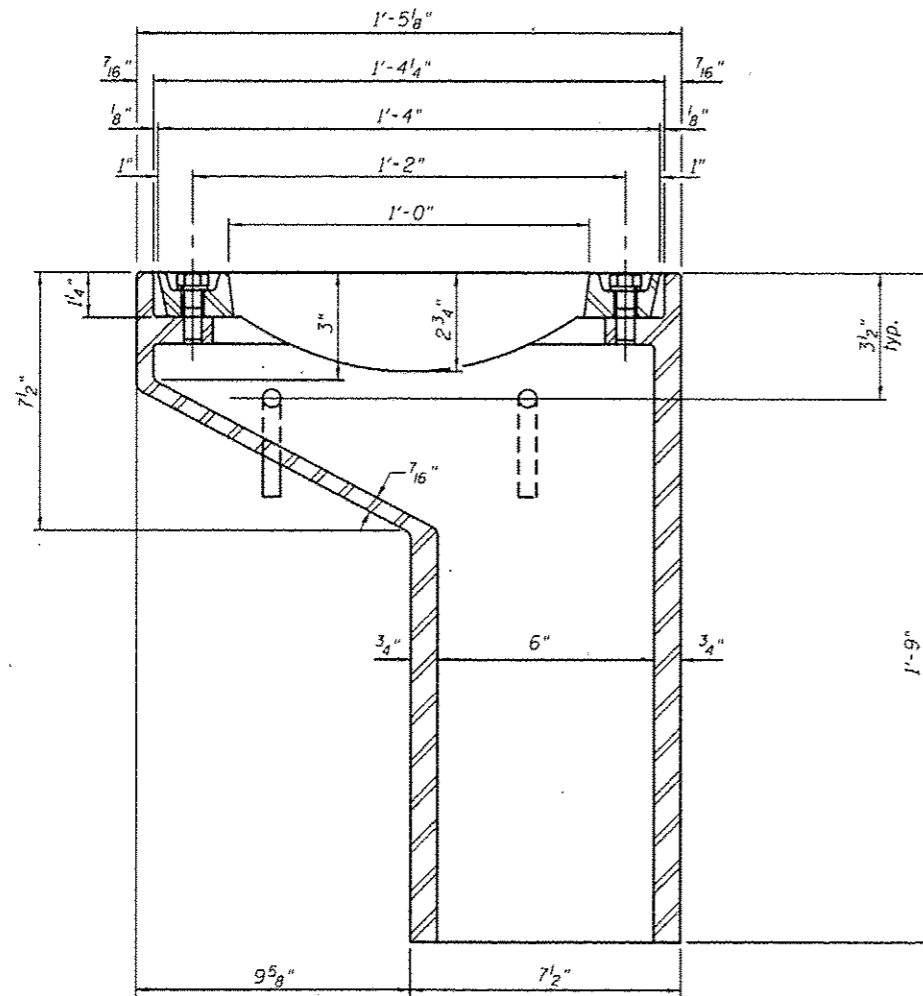
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858	12-B-1	RANDOLPH	90	69

CONTRACT NO. 76H81
ILLINOIS FED. AID PROJECT

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Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scuppers, DS-11.
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	Each	16

DS-11

7-1-10



USER NAME = 000v00
 Illinois Design Firm Number 184.001670
 PLOT SCALE =
 PLOT DATE = 8/5/37 AM 2/27/2015

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 CHECKED - C.J.F.

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11
 STRUCTURE NO. 079-0019

SHEET NO. 38 OF 40 SHEETS

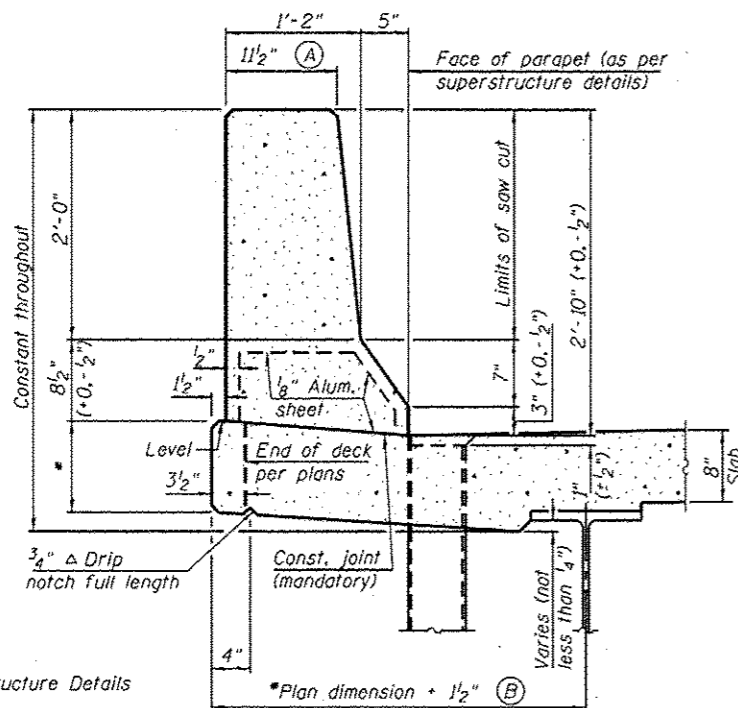
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CONTRACT NO. 76H81
 ILLINOIS FED. AID PROJECT

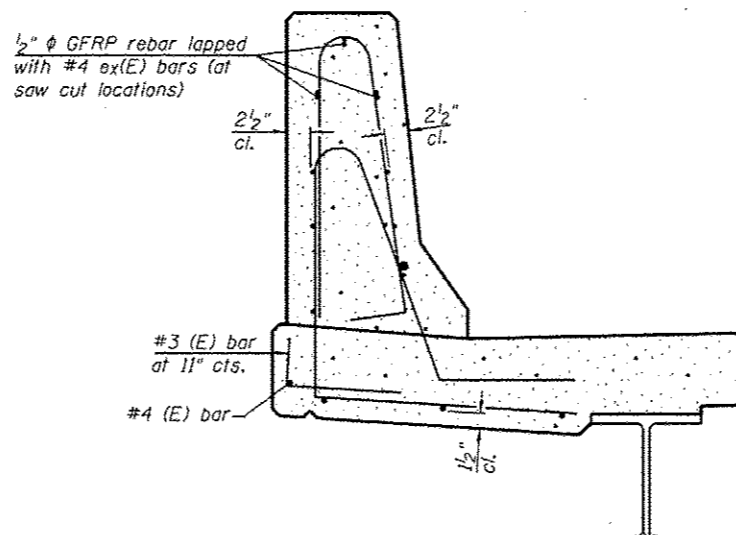
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GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0165 cu. yds./ft. for 34" parapet or = 0.0223 cu. yds./ft. for 42" parapet. Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler. Steel superstructure shown. Other superstructure types similar.

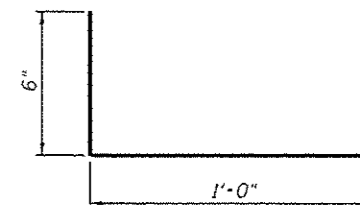


34" F SHAPE PARAPET SECTION
(Showing dimensions)

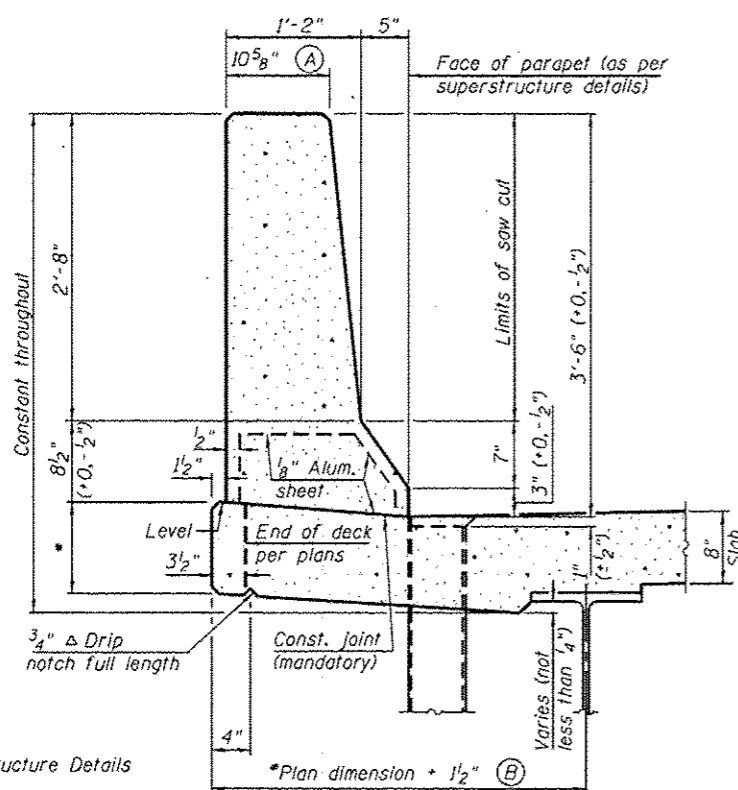


SECTION

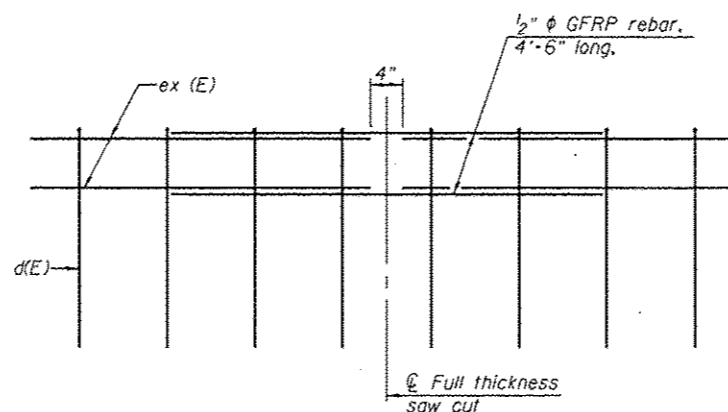
(34" parapet shown - 42" parapet similar)
(Showing reinforcement clearances for slip forming and additional reinforcement bars)



#3 (E) BAR

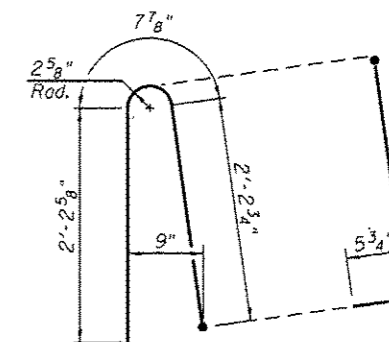


42" F SHAPE PARAPET SECTION
(Showing dimensions)

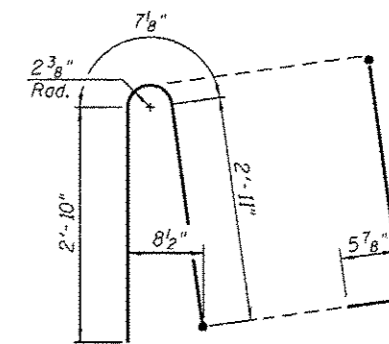


GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)



ALTERNATE BAR d(E)
(For 34" parapet when conduit is present)



ALTERNATE BAR d(E)
(For 42" parapet when conduit is present)

SFP 34-42

8-16-12

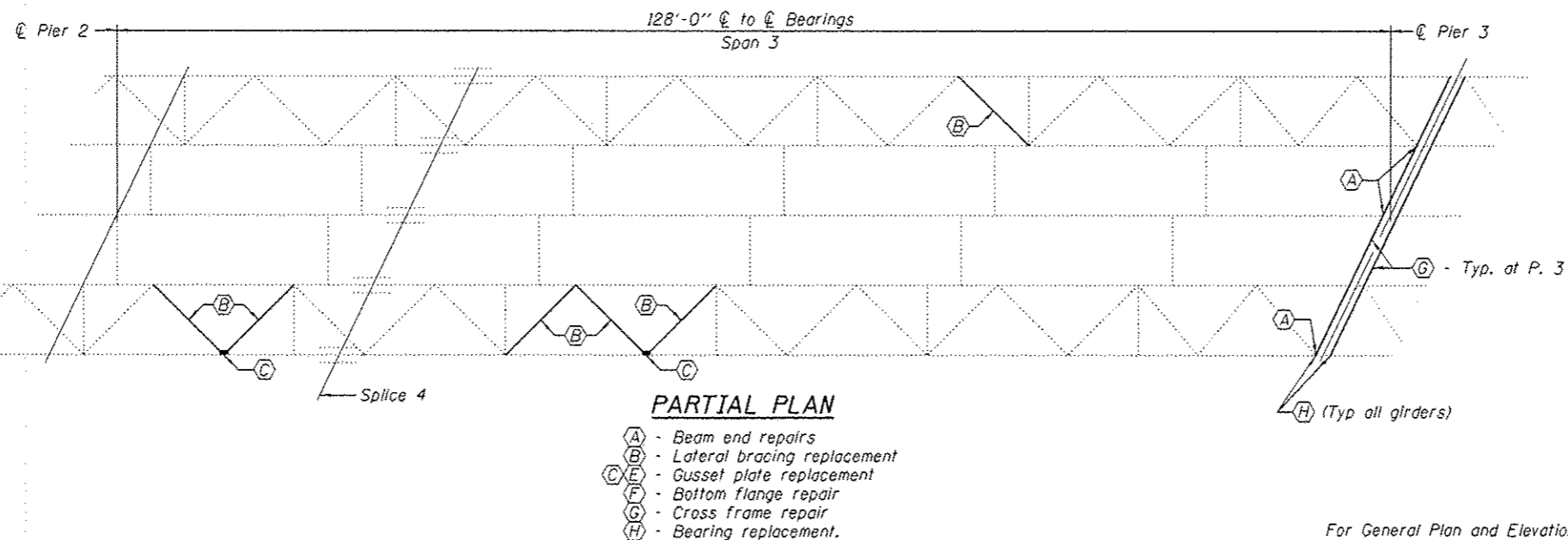
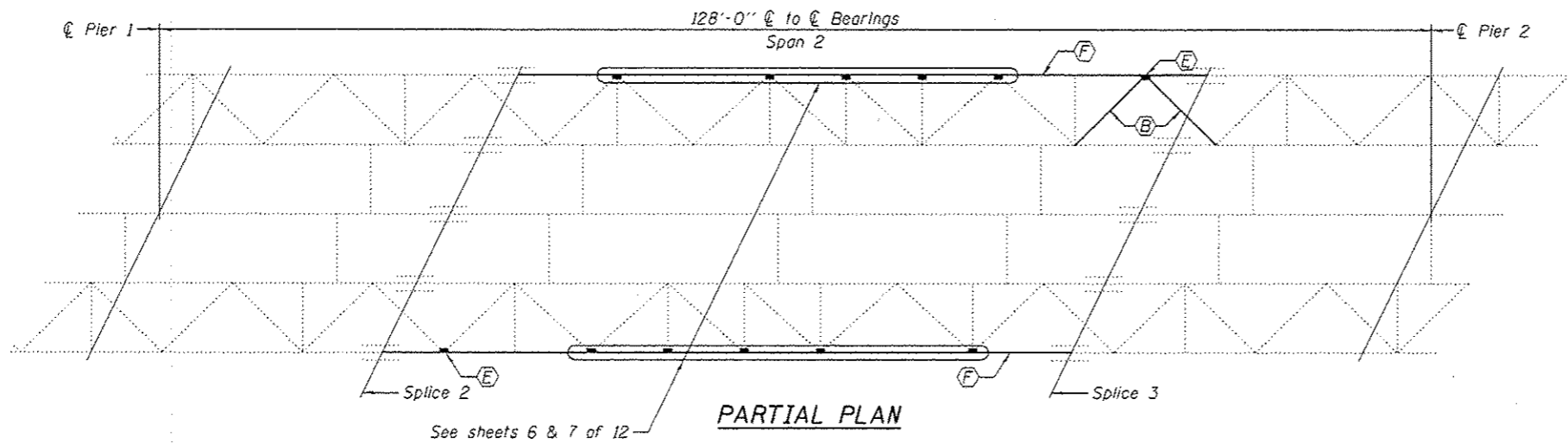
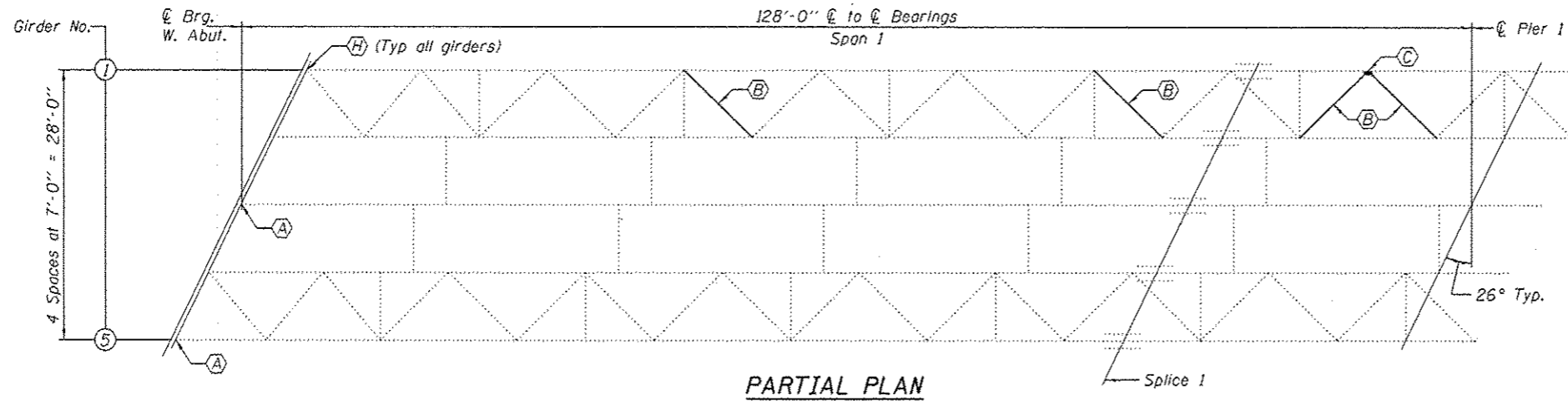
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	PLOT SCALE = PLOT DATE = 8/15/10 AM 2/27/2015	DRAWN - WS CHECKED - CJF	REVISED - REVISED -			SHEET NO. 40 OF 40 SHEETS	CONTRACT NO. 76H81 ILLINOIS FED. AID PROJECT			

NOTES

** All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
 Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
 The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat shall be Gray, Munsell No. 5B 7/1.
 Fasteners shall be high strength bolts. Bolts 7/8"φ, open holes 15/16"φ, unless otherwise noted.
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
 New WT5X11 lateral bracings are included with Furnishing and Erecting Structural Steel.

** For steel work shown on sheets 73 thru 84 of 90.



- (A) - Beam end repairs
- (B) - Lateral bracing replacement
- (C) - Gusset plate replacement
- (E) - Bottom flange repair
- (F) - Cross frame repair
- (G) - Bearing replacement
- (H) - Bearing replacement

*** BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Structural Steel Removal	Lbs.	6600
Structural Steel Repair	Lbs.	16010
Furnishing and Erecting Structural Steel	Lbs.	15650
Jack and Remove Existing Bearings	Each	30
Elastomeric Bearing Assembly, Type I	Each	5
Elastomeric Bearing Assembly, Type II	Each	25
Anchor Bolts 1"φ	Each	80
Anchor Bolts 1 1/4"φ	Each	40

* Quantities included in Total Bill of Material on sheet 34 of 90.

For General Plan and Elevation, see sheet 33 of 90.



EXPIRES 11-30-2016
 (Seal applies to sheets 73 thru 84 of 90)

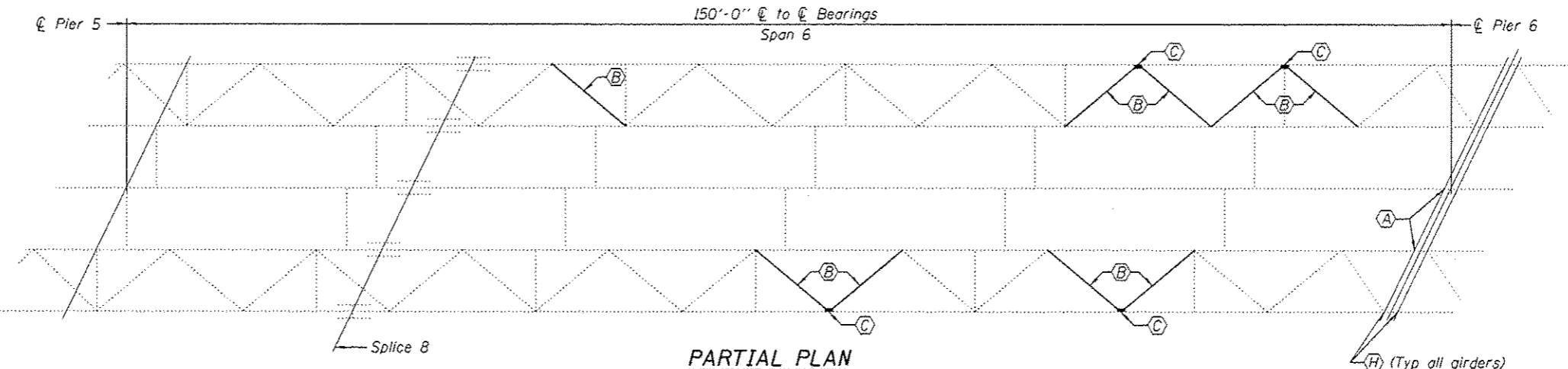
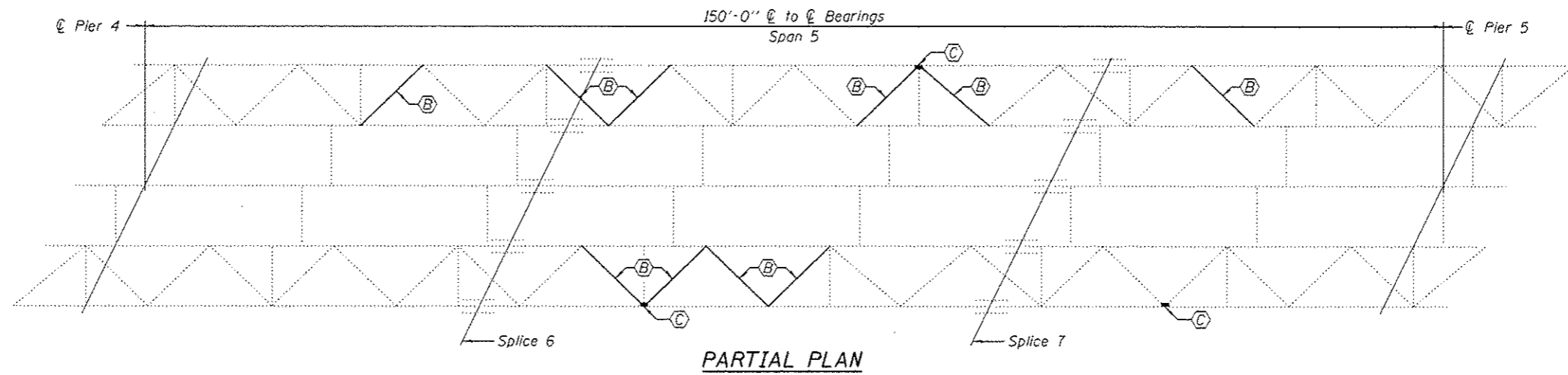
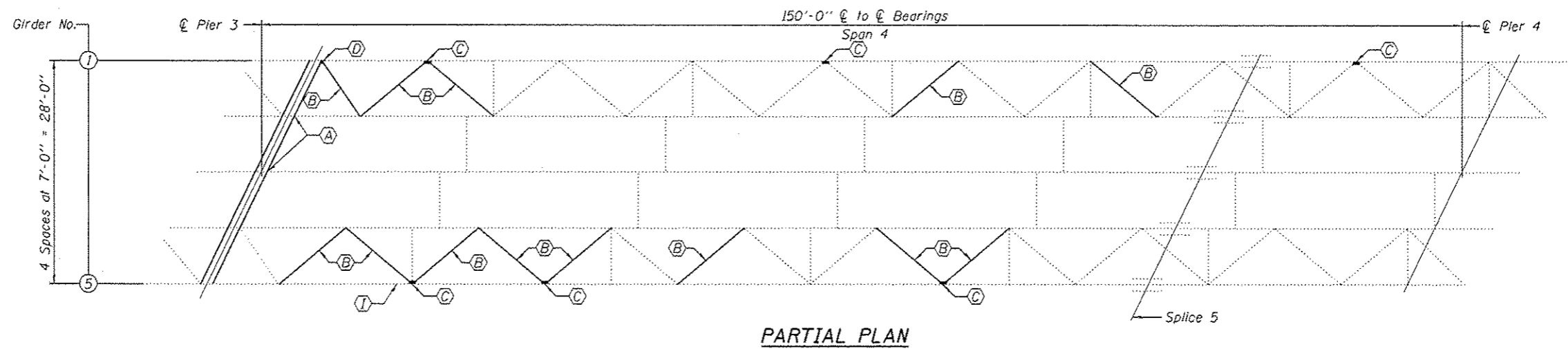
DESIGNED <i>John Blum</i>	EXAMINED <i>Timothy J. Delt</i>	DATE MARCH 10, 2015
CHECKED <i>Michael...</i>	PASSED <i>...</i>	REVISED
DRAWN <i>baliva</i>		REVISED
CHECKED <i>TLC</i>		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FRAMING PLAN UNIT 1
 FAS 858 OVER THE KASKASKIA RIVER
 SN 079-0019

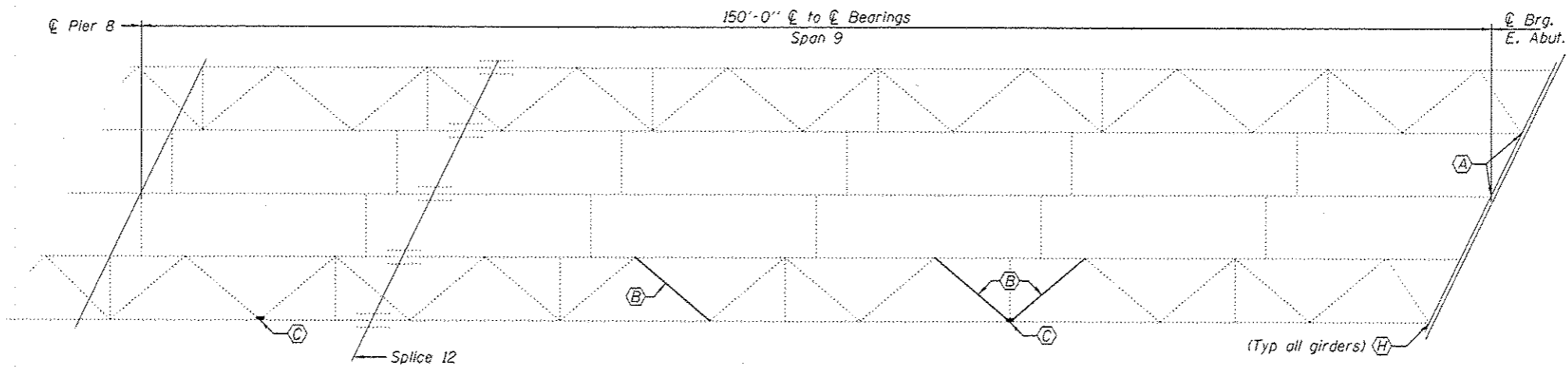
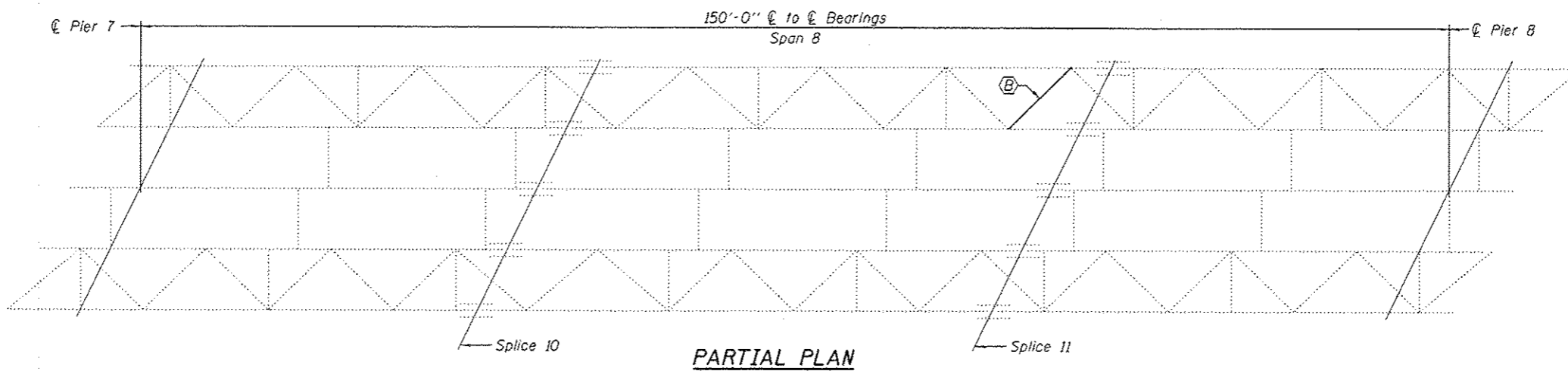
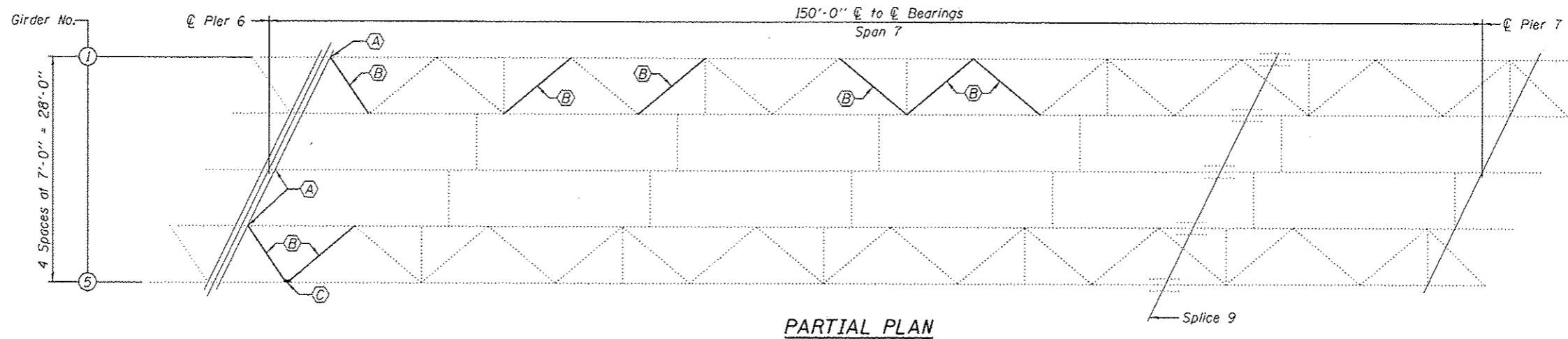
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-0-1	RANDOLPH	90	73
CONTRACT NO. 76H81			ILLINOIS FED. AID PROJECT	

SHEET NO. 1 OF 12 SHEETS



- (A) - Beam end repairs
- (B) - Lateral bracing replacement
- (C) - Gusset plate replacement
- (D) - Bottom flange repair
- (I) - Bearing replacement

DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. A. [Signature]</i>	DATE <u>MARCH 10, 2015</u>	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN UNIT 2 SN 079-0019	F.A.S. RTE. 859	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 14	
CHECKED <i>CCC</i>	PASSED <i>[Signature]</i>	REVISED			SHEET NO. 2 OF 12 SHEETS		CONTRACT NO. 76H81			
DRAWN <i>baliva</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			ILLINOIS FED. AID PROJECT					
CHECKED <i>TLC CCC</i>										



- (A) - Beam end repairs
- (B) - Lateral bracing replacement
- (C) - Gusset plate replacement
- (H) - Bearing replacement.

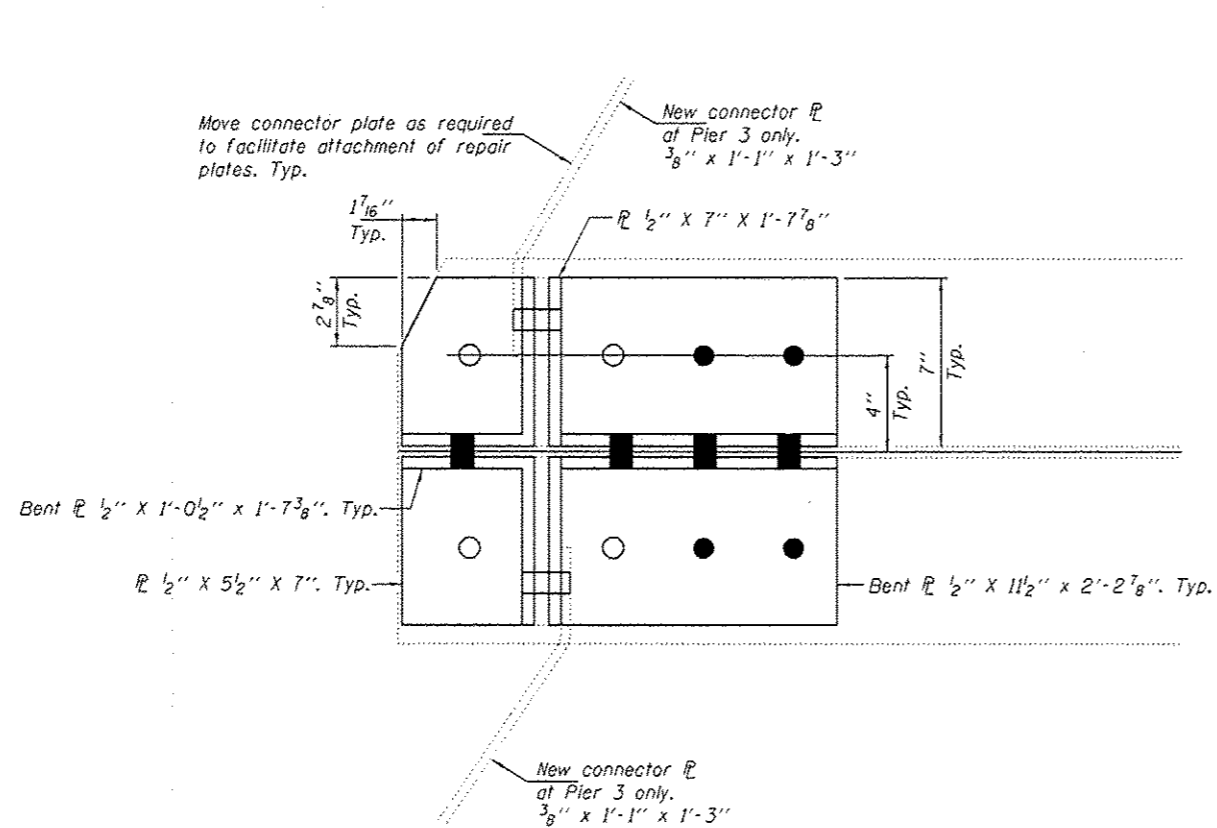
DESIGNED TLC
 CHECKED CCC
 DRAWN baliva
 CHECKED TLC CCC

EXAMINED
 PASSED
 DATE MARCH 10, 2015
 REVISED
 REVISED

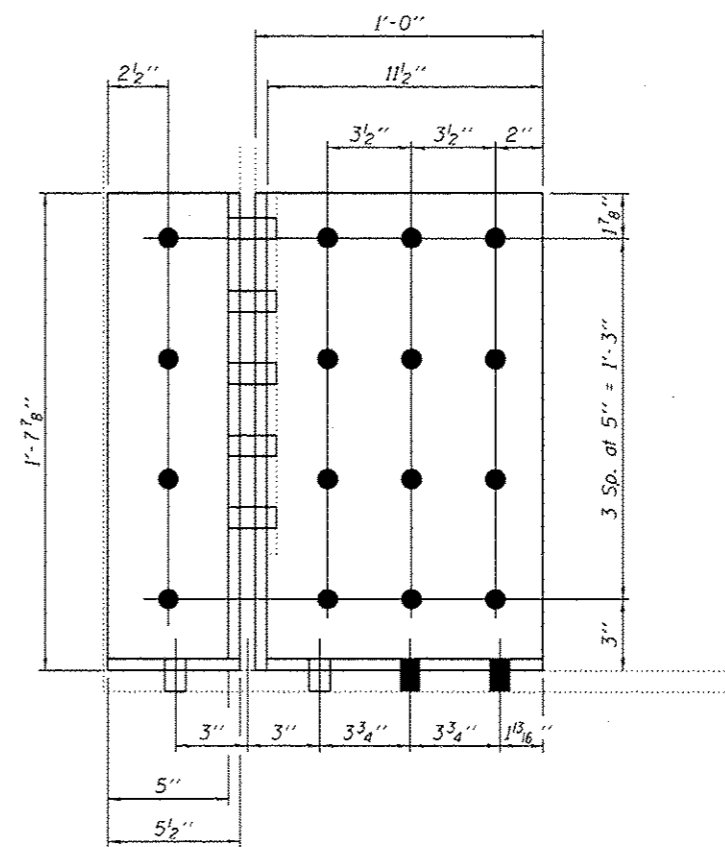
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FRAMING PLAN UNIT 3
 SN 079-0019
 SHEET NO. 3 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	75
CONTRACT NO. 76H81			ILLINOIS FED. AID PROJECT	



PLAN



END ELEVATION

LEGEND

- - Holes to be field drilled in existing PL using new PL as template.
- - Holes to be field drilled in new PL & L using existing holes as template.

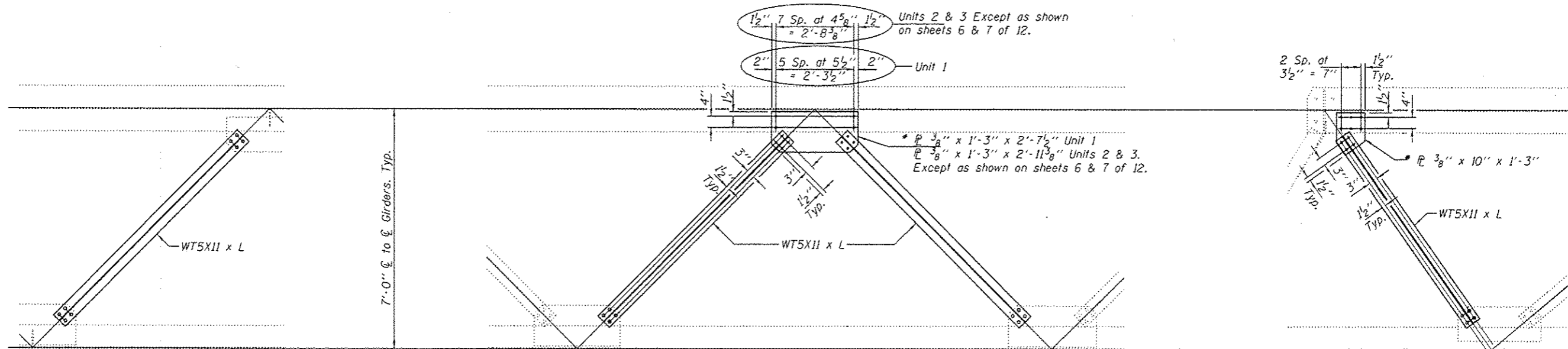
DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. Angett</i>	DATE <i>MARCH 10, 2015</i>
CHECKED <i>CCC</i>	ACTING ENGINEER OF STRUCTURAL SERVICES	REVISED
DRAWN <i>baliva</i>	PASSED <i>Carl Papp</i>	REVISED
CHECKED <i>TLC CCC</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**REPAIR A
SN 079-0019**

SHEET NO. 4 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	16
CONTRACT NO. 76H81			ILLINOIS FED. AID PROJECT	

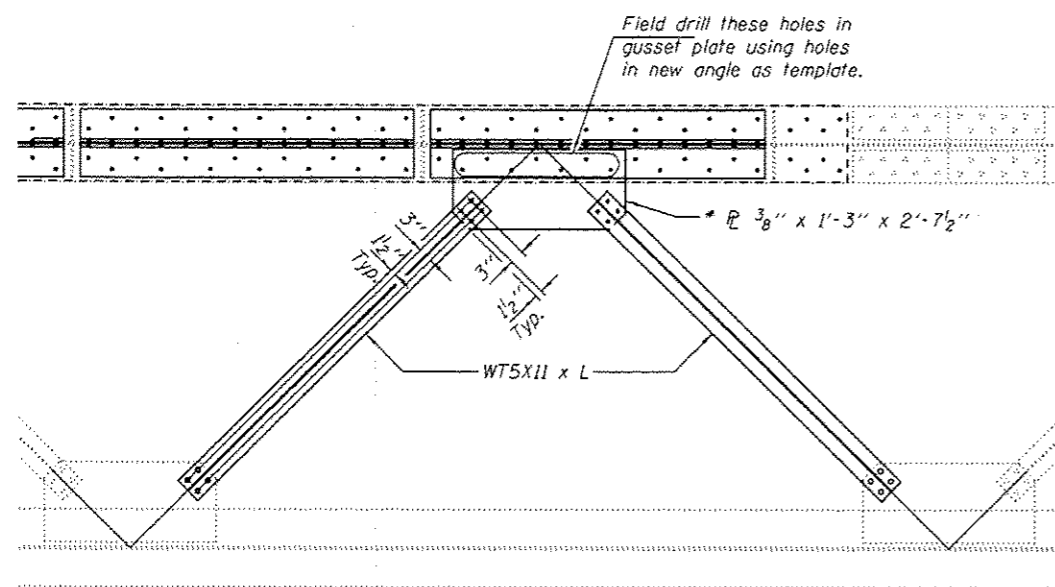


REPAIR B

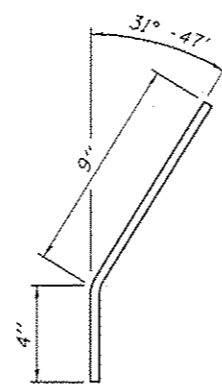
REPAIR B & C

REPAIR B & D

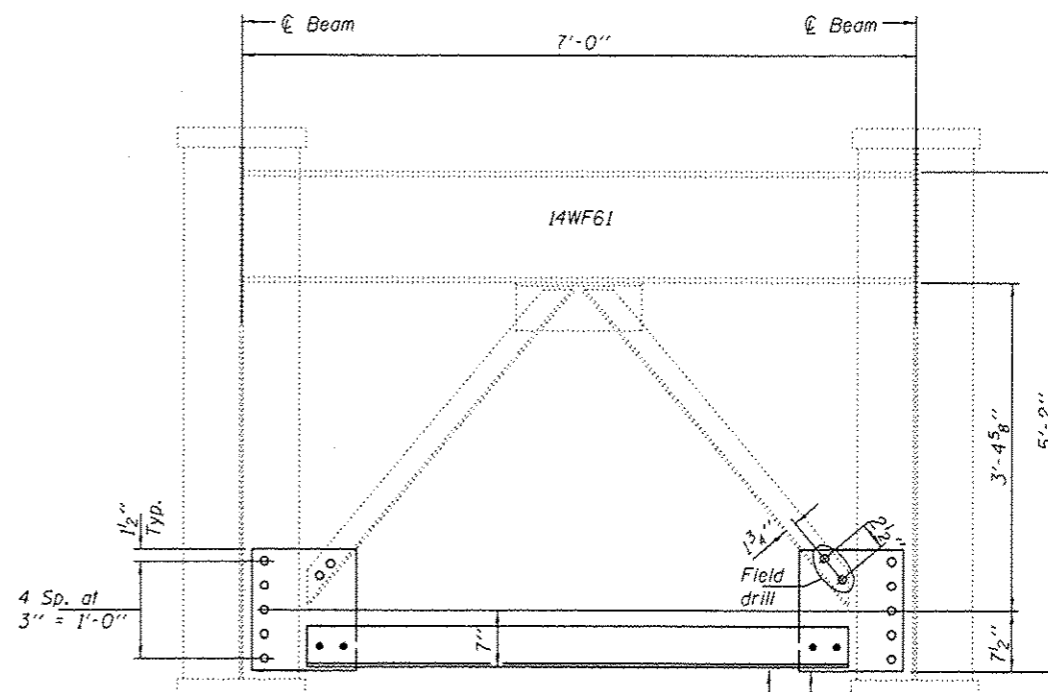
L = ±10'-1" for Unit 1
 L = ±10'-10 1/2" for Units 2 & 3
 (Match existing length)



REPAIR B & E



DETAIL A
 Bent $\frac{3}{8}$ " x 1'-1" x 1'-3"



L 5 x 5 x 3/8 x 6'-5 3/4" Long
 Bent $\frac{3}{8}$ " x 1'-1" x 1'-3" (Typ.)
 See Detail A

REPAIR G
 (8 Required)

* Existing gusset $\frac{3}{8}$ " is welded to the flange. Existing $\frac{3}{8}$ " to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange. New $\frac{3}{8}$ " to be placed on top of new bottom flange angle. Field drill all holes.

○ - Use holes in existing steel as template.
 ● - Use holes in new steel as template.

DESIGNED *TLC*
 CHECKED *CCC*
 DRAWN *balvo*
 CHECKED *TLC CCC*

EXAMINED
 PASSED
 ACTING ENGINEER OF STRUCTURAL SERVICES
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

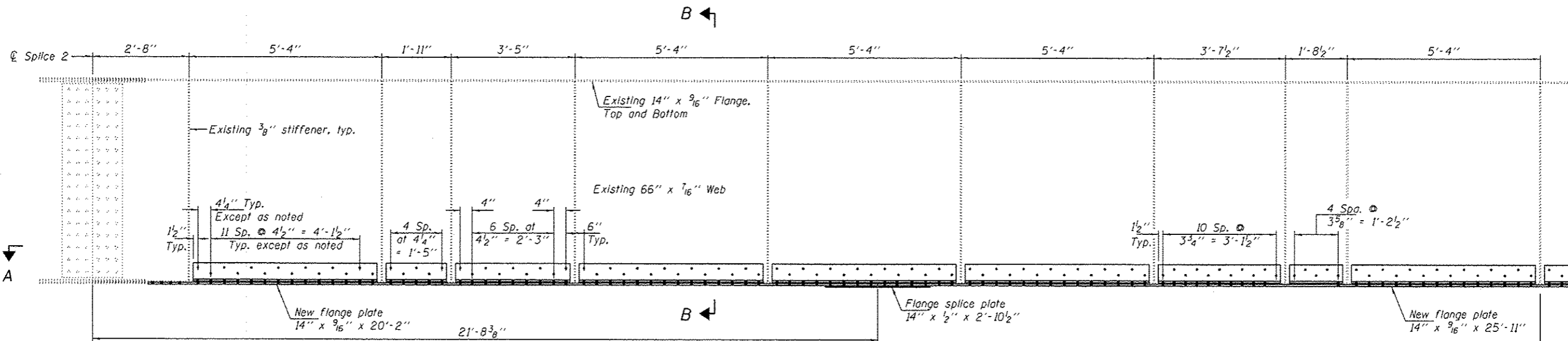
DATE MARCH 10, 2015
 REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

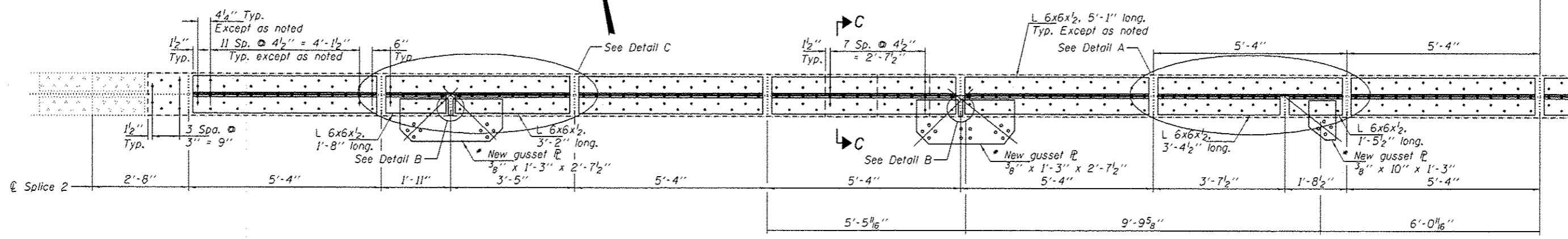
REPAIRS B, C, D, E & G
 SN 079-0019

SHEET NO. 5 OF 12 SHEETS

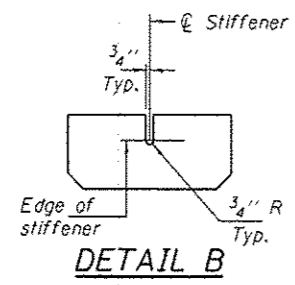
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
859	12-B-1	RANDOLPH	90	77
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				



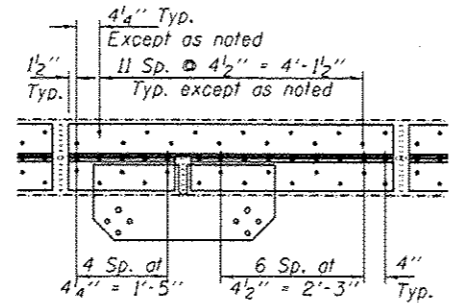
PARTIAL ELEVATION GIRDERS 1 & 5
(Girder 1 shown, Girder 5 similar by rotation)



SECTION A-A

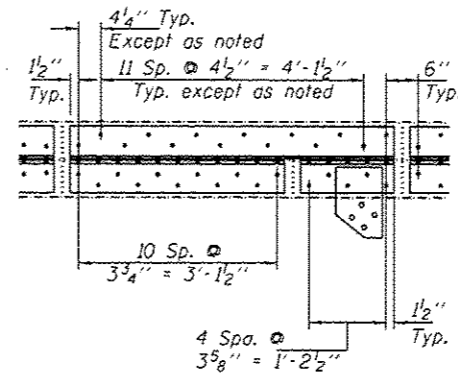


DETAIL B



DETAIL C

* Existing gusset \mathcal{R} is welded to the flange. Existing \mathcal{R} to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange. New \mathcal{R} to be placed on top of new bottom flange angle. Field drill all holes.

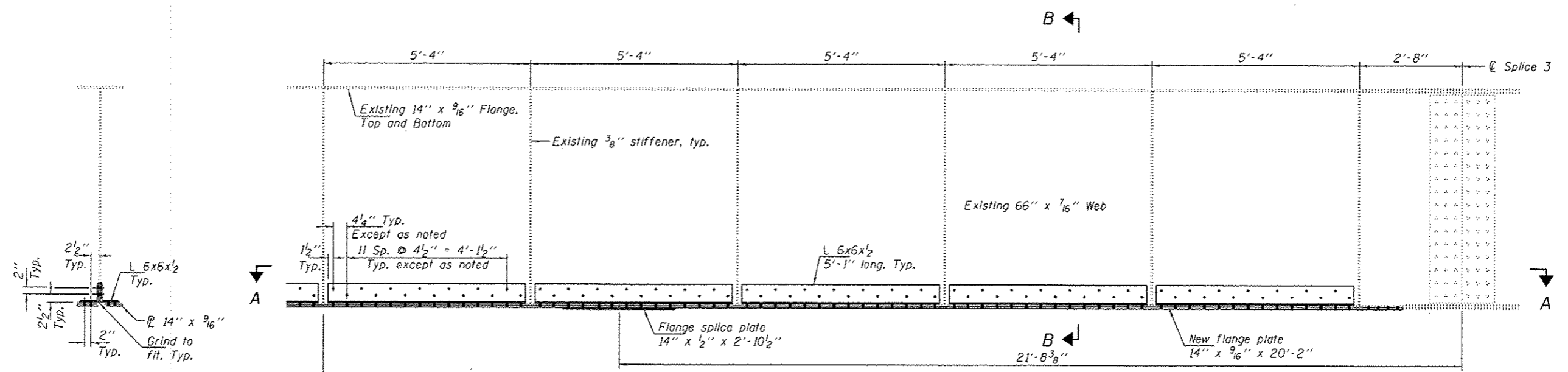


DETAIL A

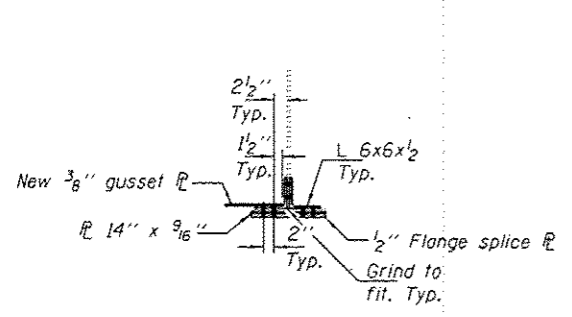
- - Use holes in existing steel as template.
- - Use holes in new steel as template.

See Sheet 7 of 12 for Sections B-B & C-C

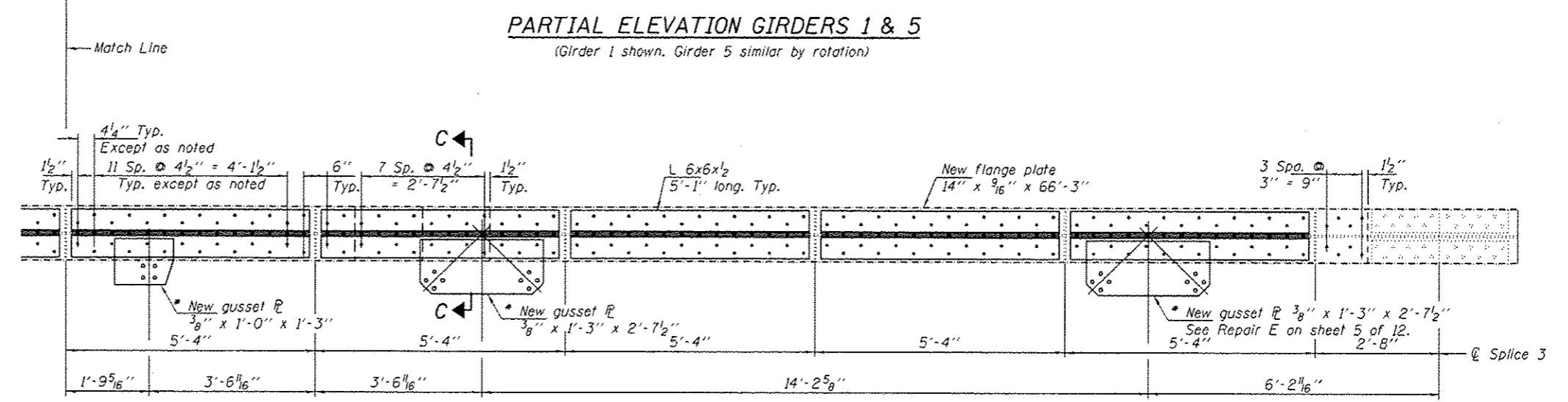
DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. Anz...</i>	DATE <i>MARCH 10, 2015</i>	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REPAIR F SN 079-0019	F.A.S. RTE. 858	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 78	
CHECKED <i>CCC</i>	PASSED <i>Carl...</i>	REVISED			CONTRACT NO. 76H81					
DRAWN <i>baliva</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			SHEET NO. 6 OF 12 SHEETS					
CHECKED <i>TLC CCC</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			ILLINOIS FED. AID PROJECT					



SECTION B-B

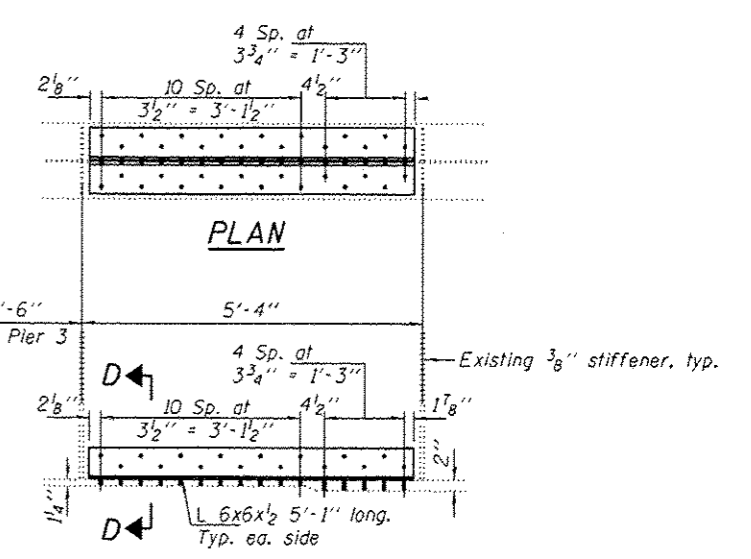


SECTION C-C

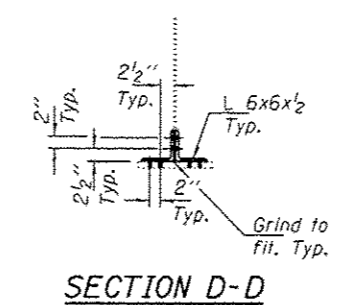


SECTION A-A

* Existing gusset \angle is welded to the flange. Existing \angle to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange. New \angle to be placed on top of new bottom flange angle. Field drill all holes.



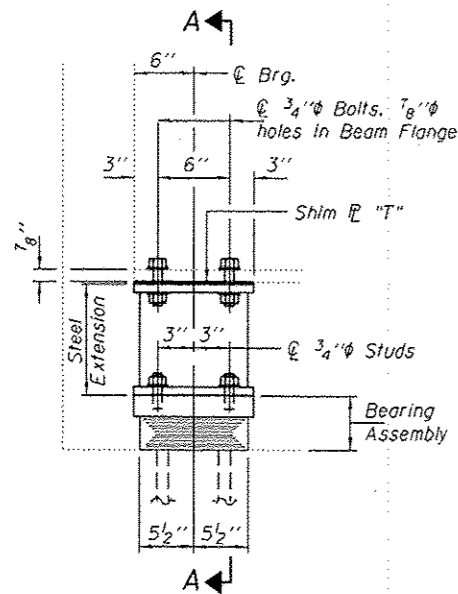
ELEVATION REPAIR I



SECTION D-D

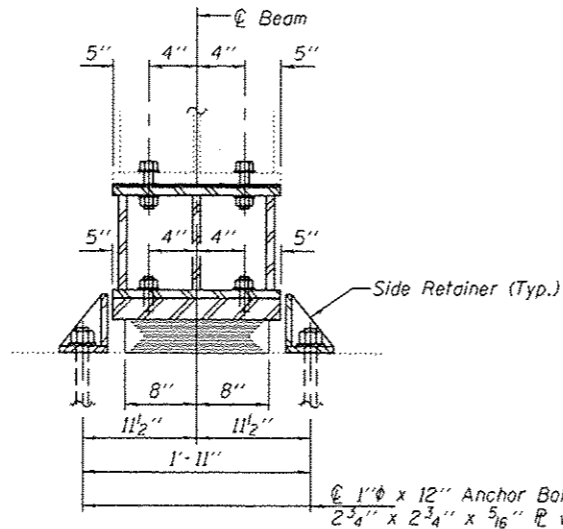
- - Use holes in existing steel as template.
- - Use holes in new steel as template.

DESIGNED <i>TLC</i>	EXAMINED <i>Timothy A. ...</i>	DATE <i>MARCH 10, 2015</i>	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		REPAIR F & I SN 079-0019		F.A.S. RTE. 850	SECTION 12-B-1	COUNTY RANDOLPH	TOTAL SHEETS 90	SHEET NO. 79
CHECKED <i>CCC</i>	PASSED <i>Carl ...</i>	REVISED					SHEET NO. 7 OF 12 SHEETS		ILLINOIS FED. AID PROJECT		CONTRACT NO. 76H81



ELEVATION

TYPE I ELASTOMERIC EXP. BRG.

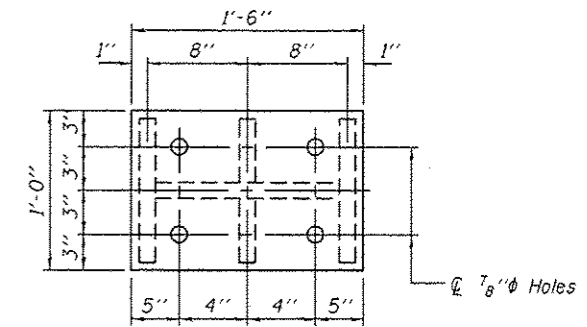


SECTION A-A

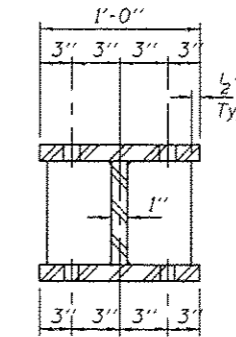
BEAM REACTIONS

R _l + S _l (K)	70.9
R _t (K)	40.4
Imp. (K)	8.0
R (Total) (K)	119.3

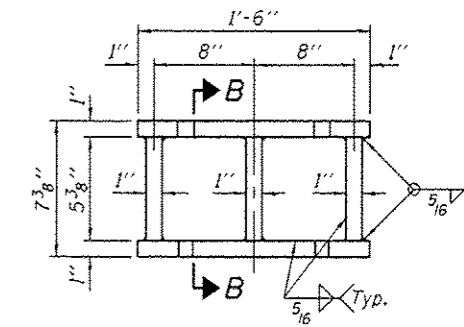
Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 70 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 Drilled and set anchor bolts shall be installed according to Article 52L06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.



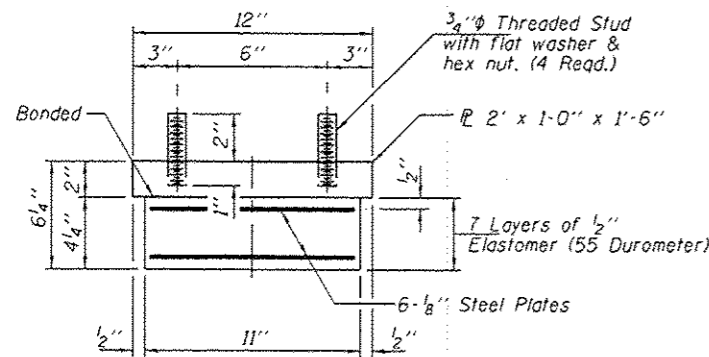
PLAN TOP AND BOTTOM PLATE



SECTION B-B



STEEL EXTENSION DETAIL

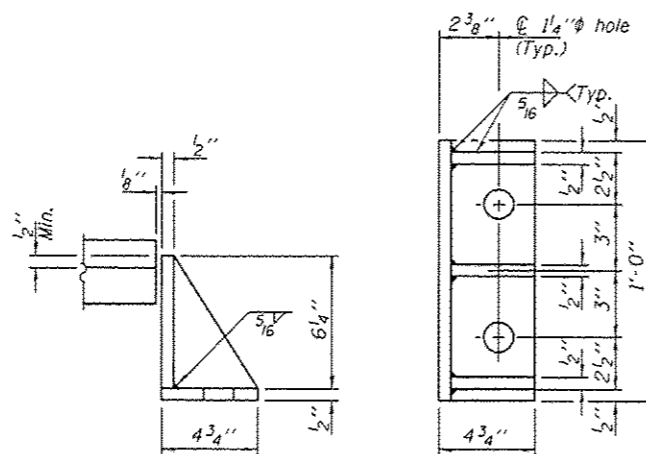


BEARING ASSEMBLY

Note:
 Shim plates shall not be placed under Bearing Assembly.

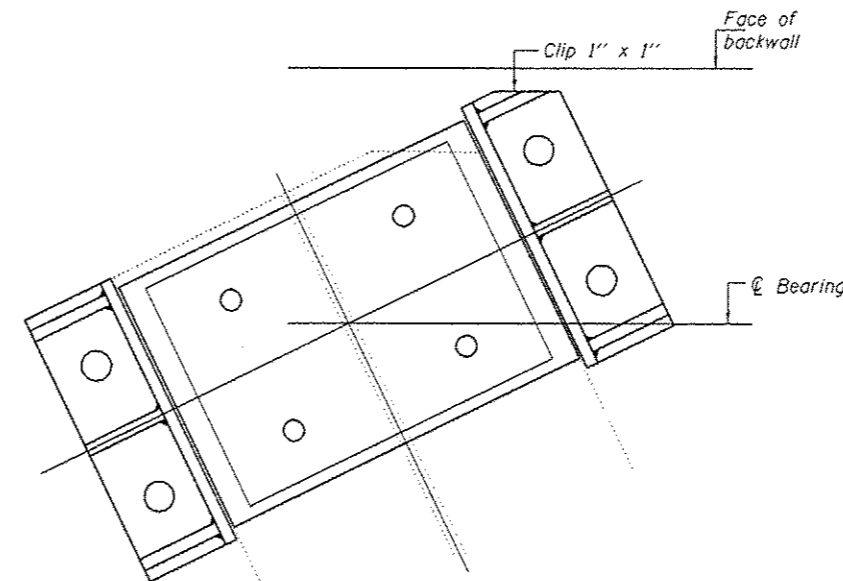
SHIM PLATE "T"

Girders 1 & 5	0
Girder 2	1 1/8"
Girder 3	1 3/8"
Girder 4	2 1/8"

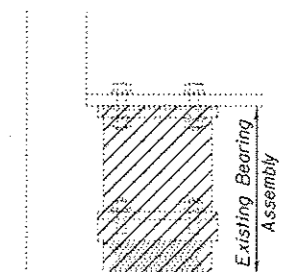


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



RETAINER LAYOUT



Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy.

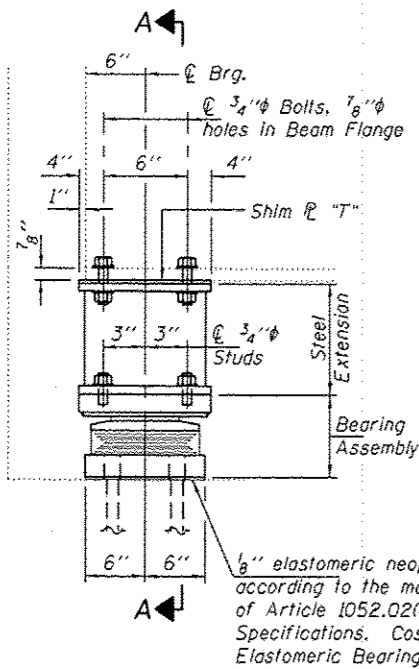
EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

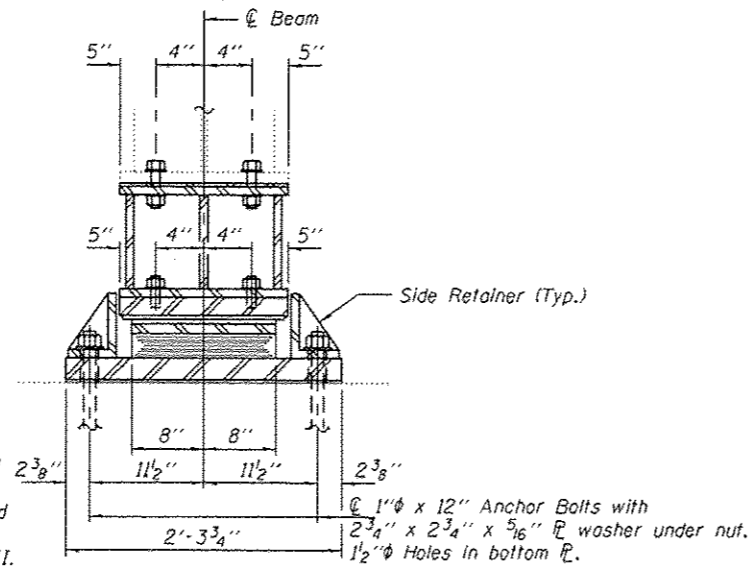
Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	1190
Anchor Bolts 1" ϕ	Each	20

TYI/REPS 12-03-2008



ELEVATION

TYPE II TFE ELASTOMERIC EXP. BRG.



SECTION A-A

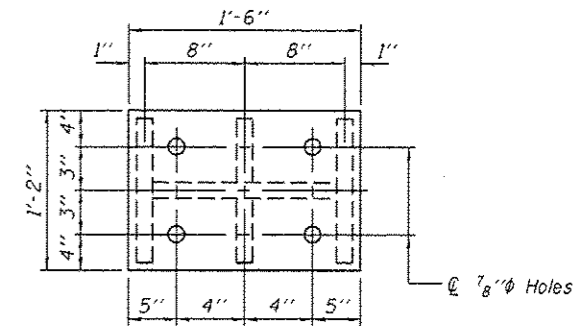
SHIM PLATE "T"

Girders 1 & 5	0
Girder 2	1 1/8"
Girder 3	1 3/8"
Girder 4	5/8"

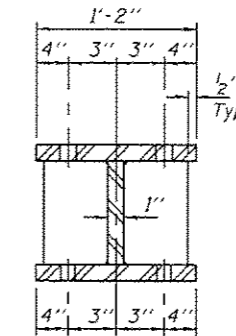
BEAM REACTIONS

RP + SP (K)	70.9
R _L (K)	40.4
Imp. (K)	8.0
R (Total) (K)	119.3

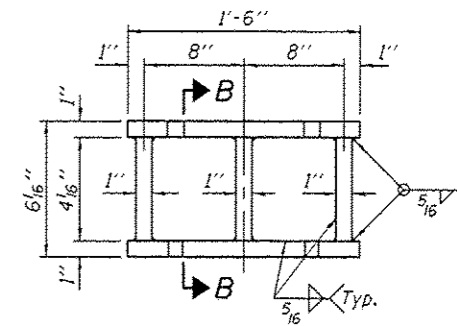
Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 70 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



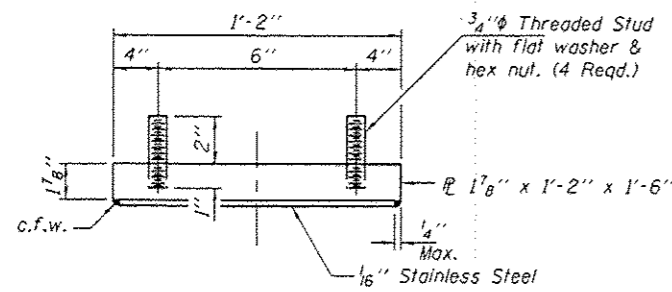
PLAN TOP AND BOTTOM PLATE



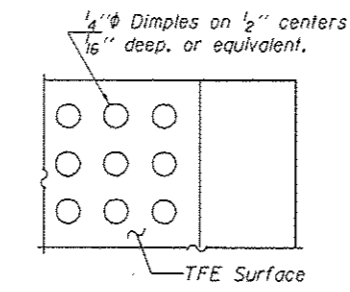
SECTION B-B



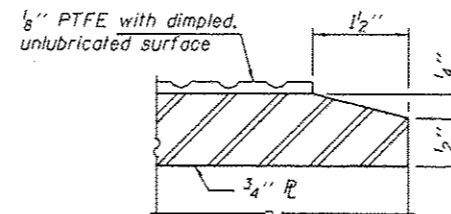
STEEL EXTENSION DETAIL



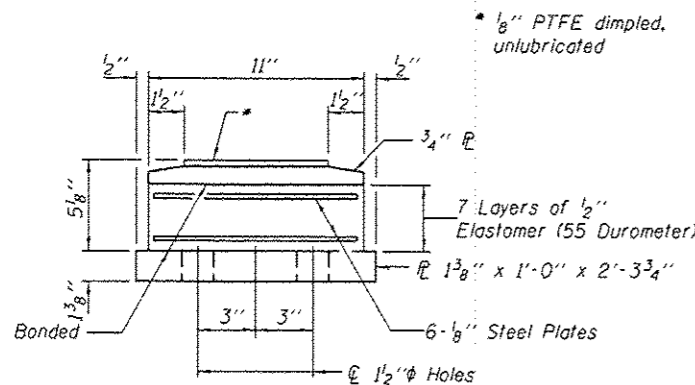
TOP BEARING ASSEMBLY



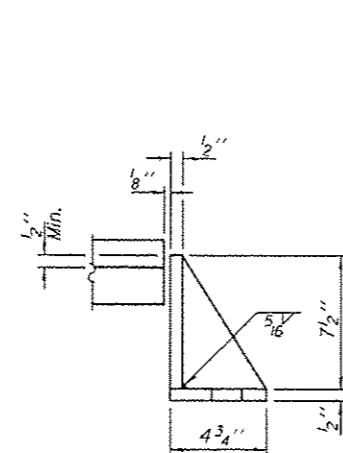
PLAN-PTFE SURFACE



SECTION THRU PTFE

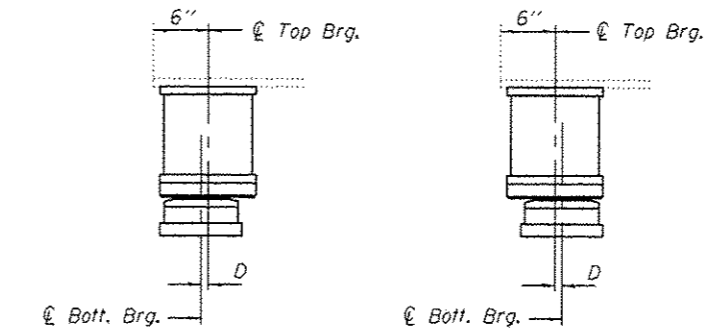


BOTTOM BEARING ASSEMBLY



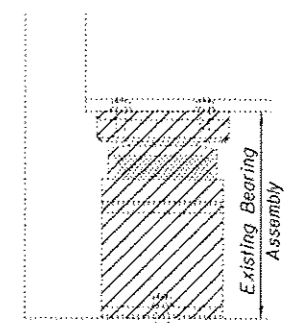
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



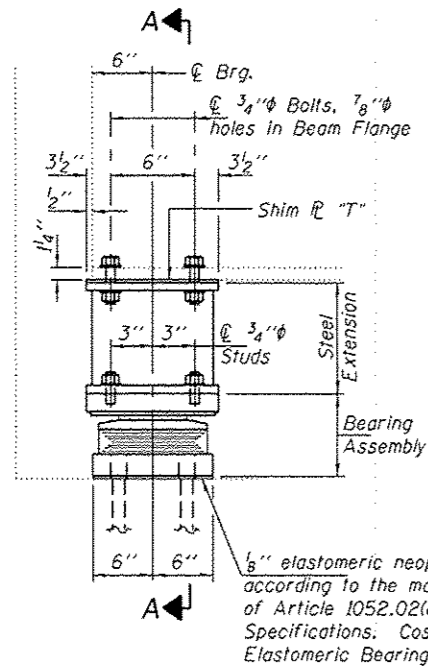
Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy.

EXISTING BEARING REMOVAL DETAIL
 Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

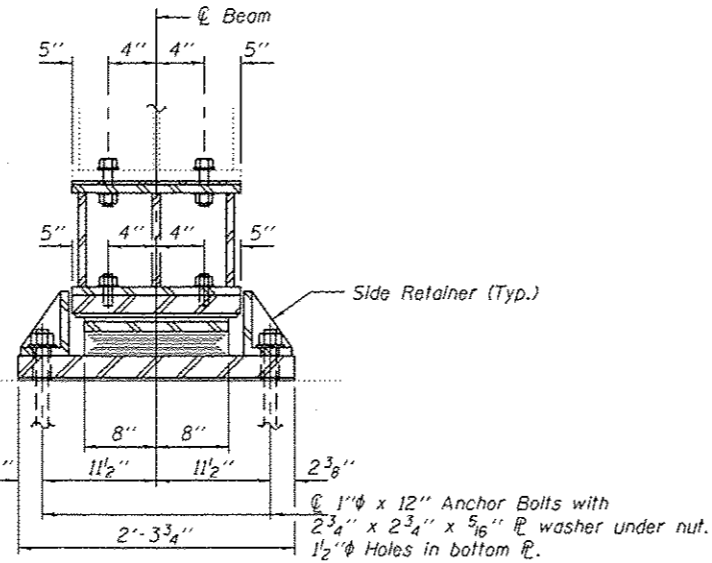
Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	1270
Anchor Bolts 1" φ	Each	20

TYII/REPS 12-03-2008



ELEVATION

TYPE II TFE ELASTOMERIC EXP. BRG.



SECTION A-A

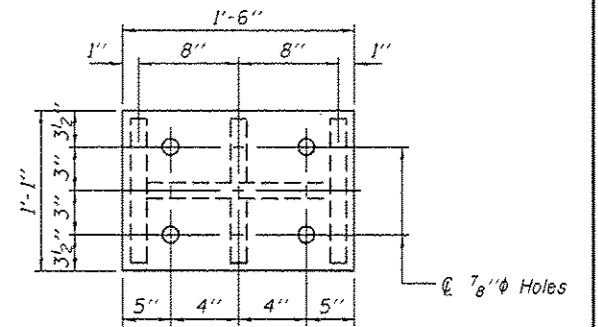
SHIM PLATE "T"

Girders 1 & 5	0
Girder 2	1 1/8"
Girder 3	1 3/8"
Girder 4	5/8"

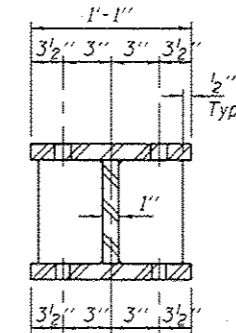
BEAM REACTIONS

R _P - S _P (K)	87.1
R _L (K)	44.5
Imp. (K)	8.1
R (Total) (K)	139.7

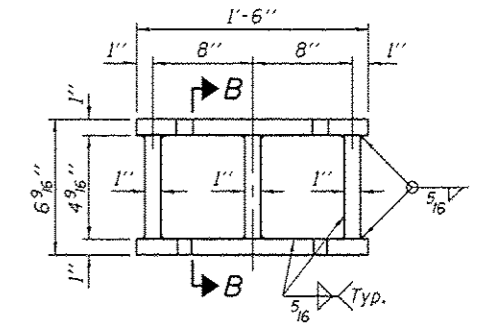
Notes:
 Diaphragm removal and installation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 85 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.
 The $1/8"$ PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
 Bonding of $1/8"$ PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



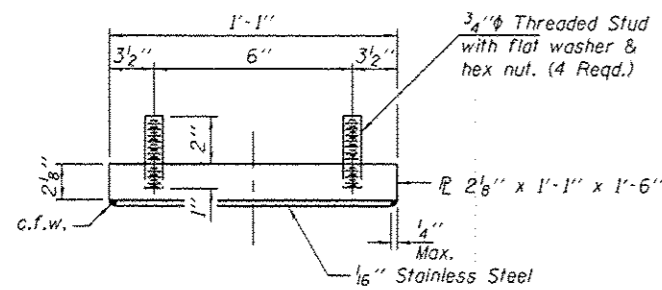
PLAN TOP AND BOTTOM PLATE



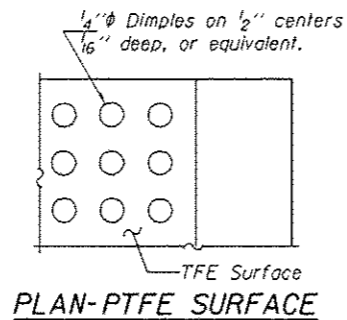
SECTION B-B



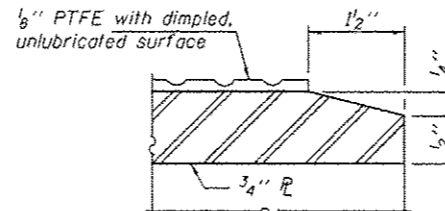
STEEL EXTENSION DETAIL



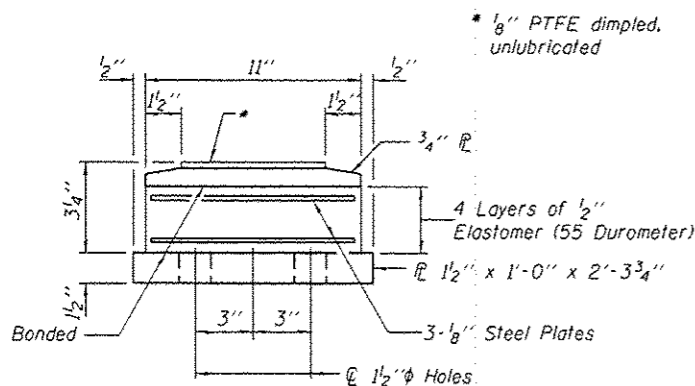
TOP BEARING ASSEMBLY



PLAN-PTFE SURFACE

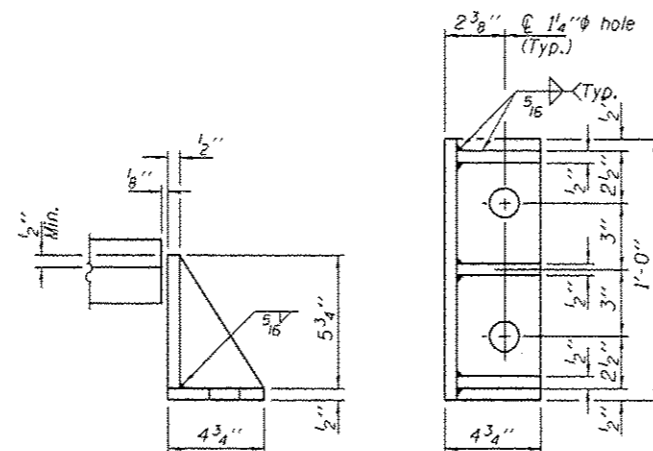


SECTION THRU PTFE



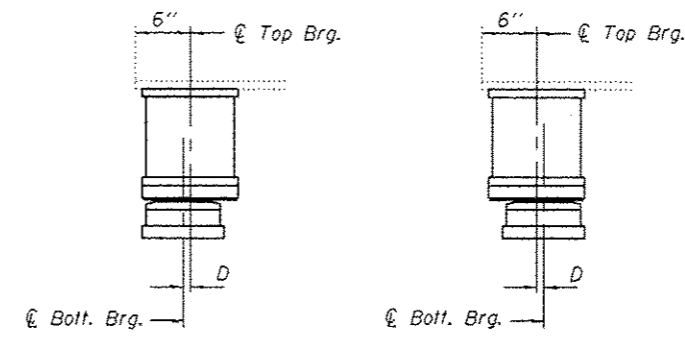
BOTTOM BEARING ASSEMBLY

* $1/8"$ PTFE dimpled, unlubricated



SIDE RETAINER

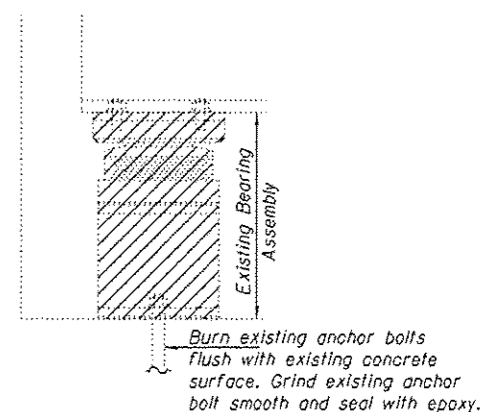
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SETTING ANCHOR BOLTS AT EXP. BRG.

BELOW 50° F. ABOVE 50° F.
 (Move bolt. brg. away from fixed brg.) (Move bolt. brg. toward fixed brg.)

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	1210
Anchor Bolts 1" ϕ	Each	20

TYII/REPS 12-03-2008

DESIGNED	TLC
CHECKED	CCC
DRAWN	boliva
CHECKED	TLC CCC

EXAMINED	Timothy A. Daulton
PASSED	ACTING ENGINEER OF STRUCTURAL SERVICES
	ACTING ENGINEER OF BRIDGES AND STRUCTURES

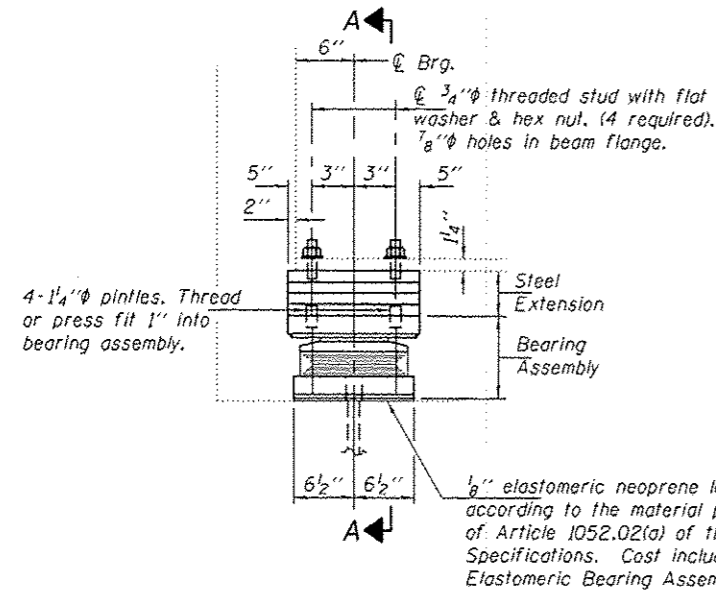
DATE	MARCH 10, 2015
REVISED	
REVISED	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PIER 3, SPAN 4 BEARINGS
 SN 079-0019

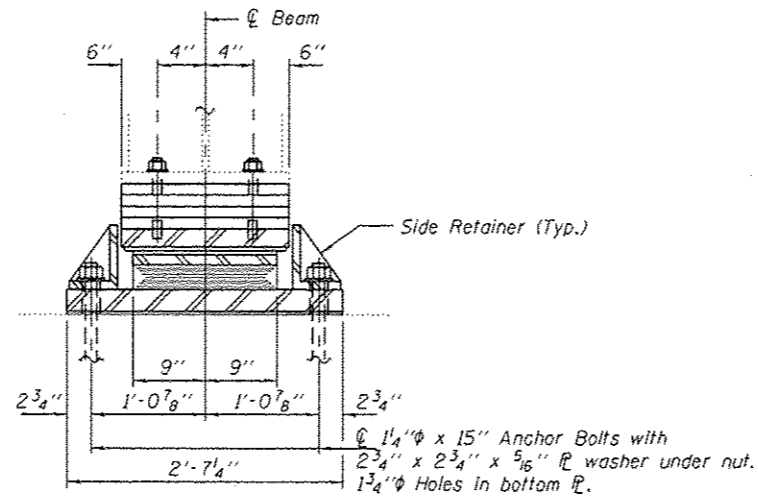
SHEET NO. 10 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-B-1	RANDOLPH	90	82
CONTRACT NO. T6H81			ILLINOIS FED. AID PROJECT	



ELEVATION

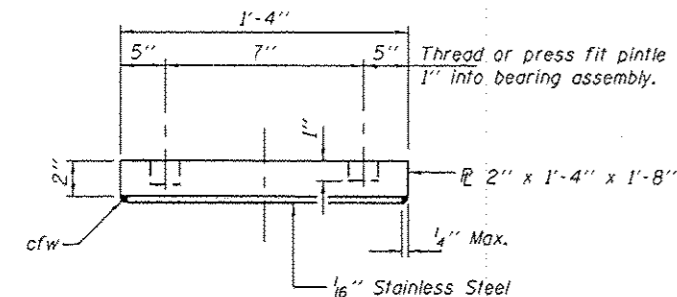
TYPE II TFE ELASTOMERIC EXP. BRG.



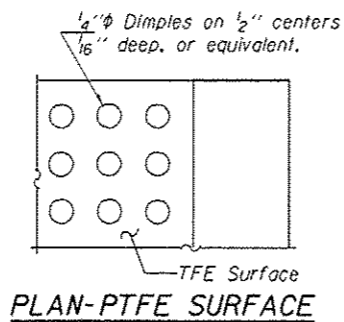
ELEVATION AT ABUTMENTS

SHIM PLATE "T"

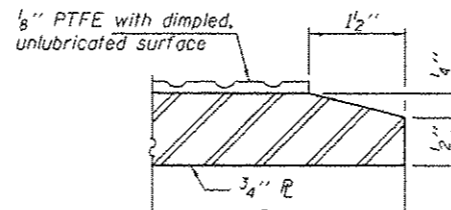
Girders 1 & 5	0
Girder 2	1 1/8"
Girder 3	1 3/8"
Girder 4	5/8"



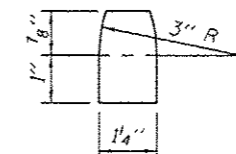
TOP BEARING ASSEMBLY



PLAN-PTFE SURFACE

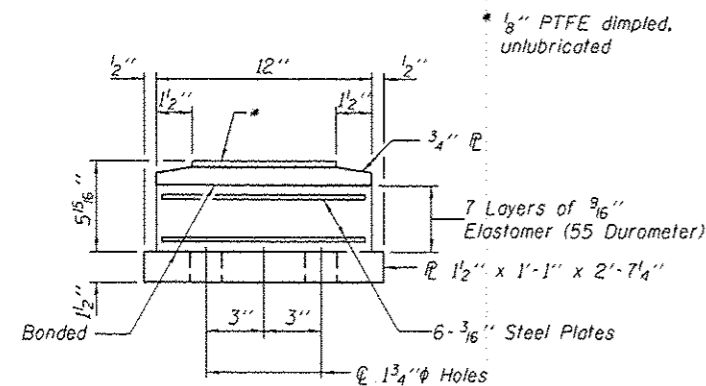


SECTION THRU PTFE

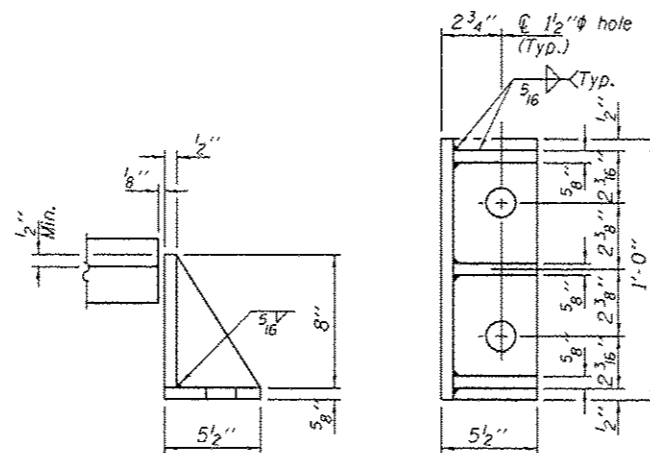


PINTLE

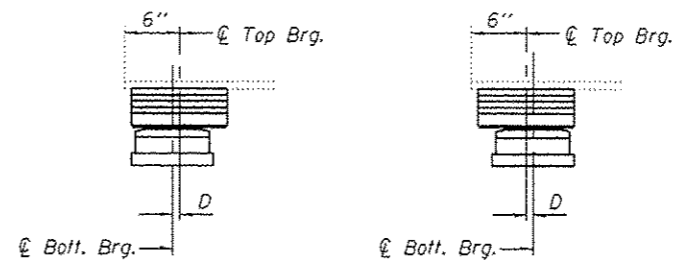
Cost of pintles is included in the cost of Elastomeric Bearing Assembly, Type II.



BOTTOM BEARING ASSEMBLY



SIDE RETAINER



SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BEAM REACTIONS

RP + SP (K)	87.1
RL (K)	44.5
Imp. (K)	8.1
R (Total) (K)	139.7

Notes:

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 85 Tons.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

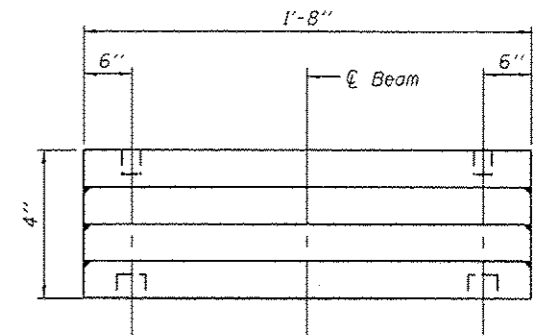
Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

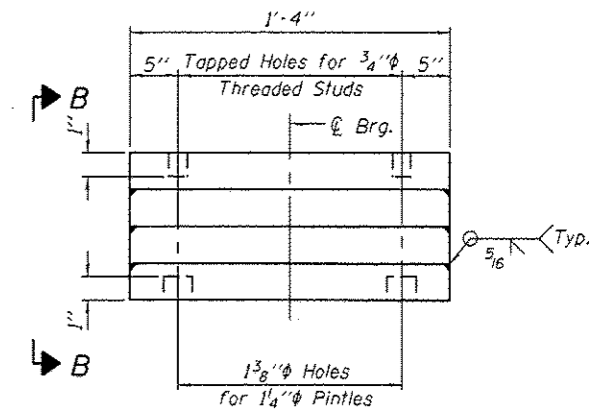
Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

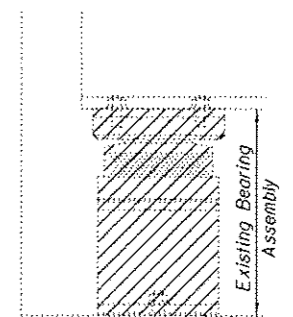


VIEW B-B



STEEL EXTENSION DETAIL

One or more φ's may be used. Number of individual φ's to be determined by fabricator. Minimum thickness of individual φ's shall be 1".



Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy.

EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	10
Jack and Remove Existing Bearings	Each	10
Furnishing and Erecting Structural Steel	Pound	3970
Anchor Bolts 1 1/4" φ	Each	40

TYII/REPS 12-03-2008

DESIGNED	TLC
CHECKED	CCC
DRAWN	baliva
CHECKED	TLC CCC

EXAMINED	Timothy A. Baliva
PASSED	ACTING ENGINEER OF STRUCTURAL SERVICES
	ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE	MARCH 10, 2015
REVISED	
REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 6 BEARINGS
SN 079-0019

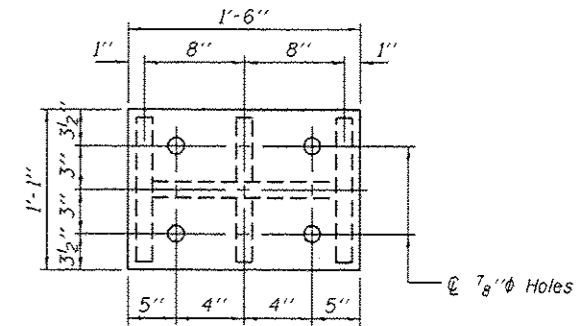
SHEET NO. 11 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
858	12-9-1	RANDOLPH	90	83
CONTRACT NO. T6H81			ILLINOIS FED. AID PROJECT	

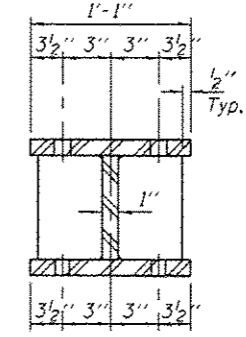
BEAM REACTIONS

RP + SP (K)	87.1
RL (K)	44.5
Imp. (K)	8.1
R (Total) (K)	139.7

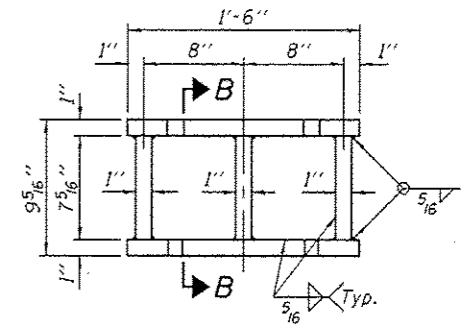
Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. Jack capacity = 85 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



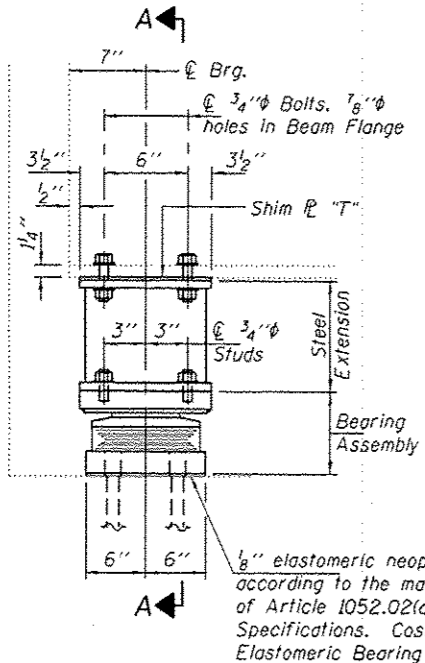
PLAN TOP AND BOTTOM PLATE



SECTION B-B

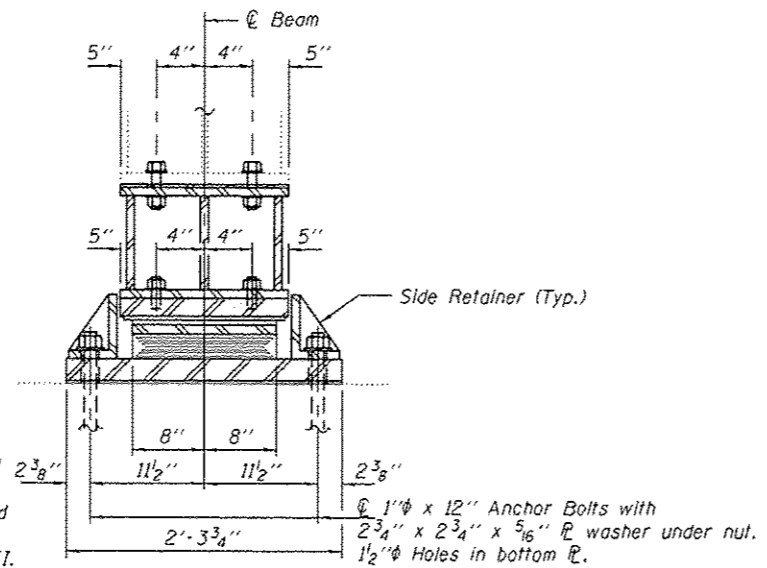


STEEL EXTENSION DETAIL



ELEVATION

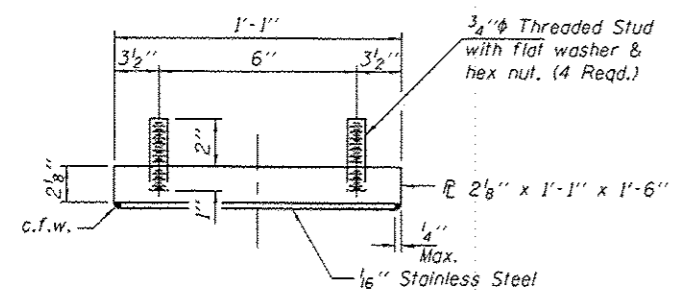
TYPE II TFE ELASTOMERIC EXP. BRG.



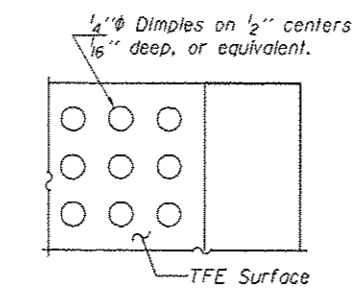
SECTION A-A

SHIM PLATE "T"

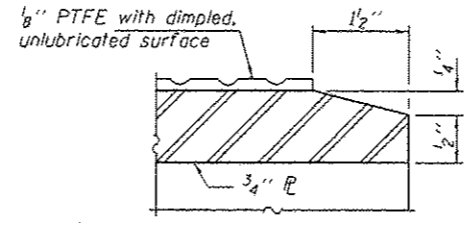
Girders 1 & 5	0
Girder 2	1 1/8"
Girder 3	1 3/8"
Girder 4	5/8"



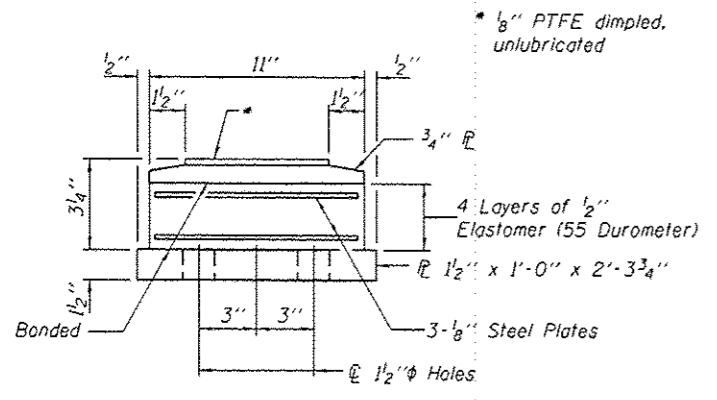
TOP BEARING ASSEMBLY



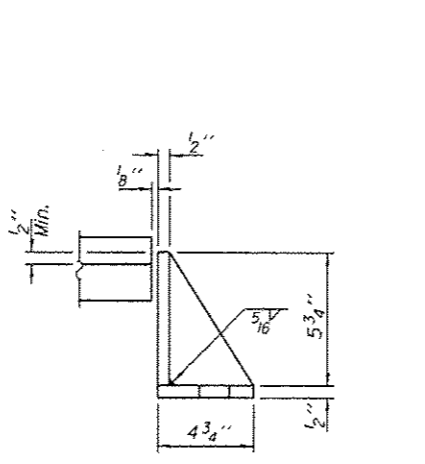
PLAN-PTFE SURFACE



SECTION THRU PTFE

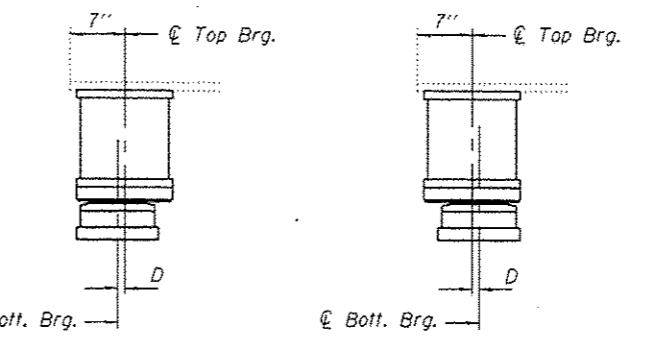
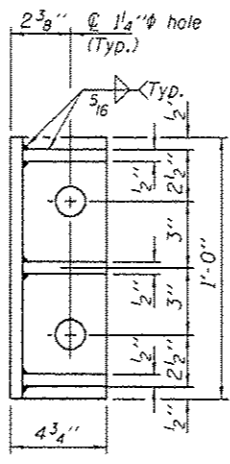


BOTTOM BEARING ASSEMBLY



*** SIDE RETAINER**

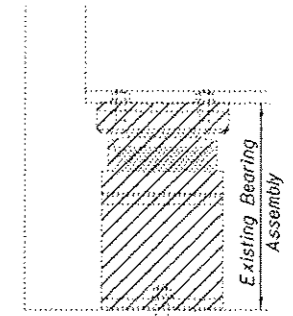
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BELOW 50° F. (Move bott. brg. away from fixed brg.)
ABOVE 50° F. (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



EXISTING BEARING REMOVAL DETAIL
 Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	1410
Anchor Bolts 1"φ	Each	20

TYII/REPS 12-03-2008

DESIGNED	TLC
CHECKED	CCC
DRAWN	baliva
CHECKED	TLC CCC

EXAMINED	Timothy A. Anghel
PASSED	ACTING ENGINEER OF STRUCTURAL SERVICES
	ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE	MARCH 10, 2015
REVISED	
REVISED	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

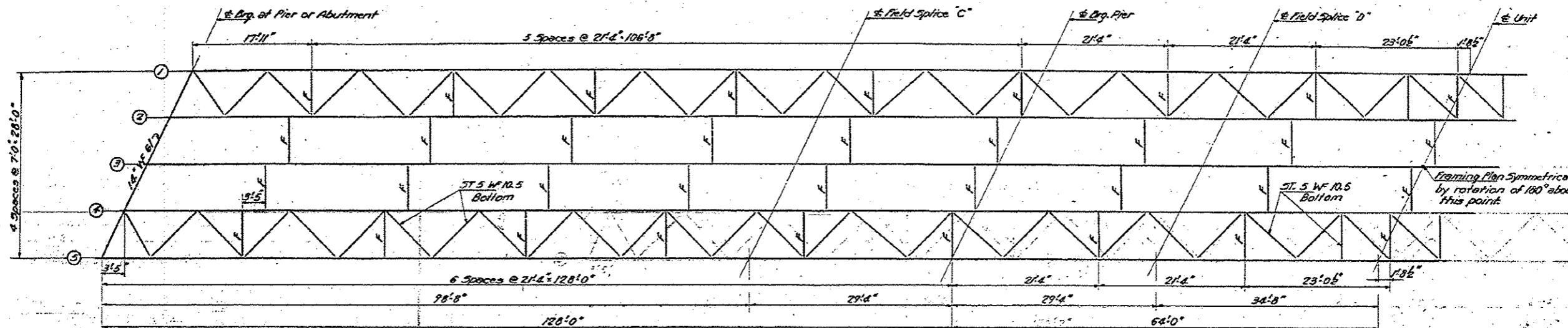
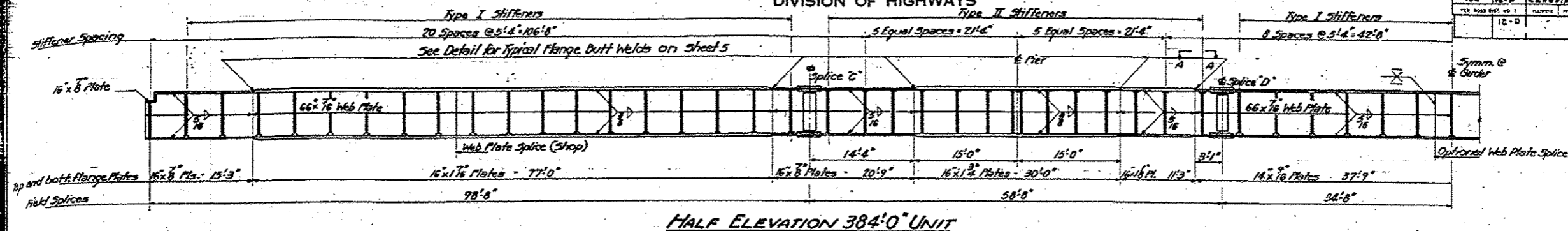
EAST ABUTMENT BEARINGS
 SN 079-0019
 SHEET NO. 12 OF 12 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
958	12-0-1	RANDOLPH	90	84
CONTRACT NO. 76H81				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.
182	12-B	Randolph	29	7
182	12-B	Randolph	11	9
12-D			15	9

SHEET NO 4
8 SHEETS

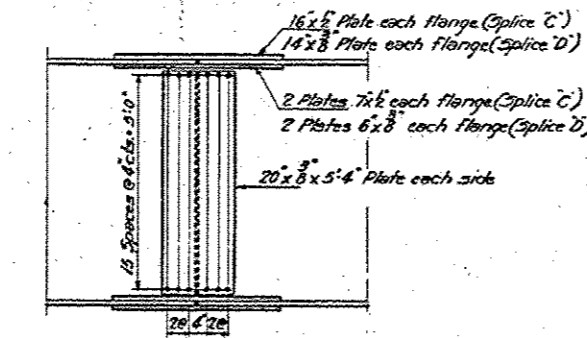


FRAMING PLAN - 384'0" GIRDERS

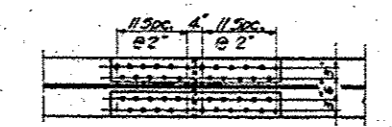
TOP OF GIRDER ELEVATIONS

ELEVATION AT	UNIT 1			UNIT 2			UNIT 3					
	± Drg. W. Abut.	± Drg. Pier 1	± Drg. Pier 2	± Drg. Pier 3	± Drg. Pier 3	± Drg. Pier 4	± Drg. Pier 5	± Drg. Pier 6	± Drg. Pier 7	± Drg. Pier 8	± Drg. E. Abut.	
Girder 1	411.29	412.33	412.18	413.95	413.94	415.06	416.07	416.95	416.97	418.09	419.10	419.99
Girder 2	411.48	412.42	413.77	414.05	414.03	415.15	416.16	417.05	417.06	418.18	419.19	420.08
Girder 3	411.50	412.44	413.79	414.07	414.05	415.17	416.18	417.07	417.08	418.20	419.21	420.10
Girder 4	411.44	412.38	413.23	414.01	413.99	415.11	416.12	417.01	417.02	418.14	419.15	420.04
Girder 5	411.29	412.23	413.08	413.85	413.84	414.96	415.97	416.86	416.87	417.99	419.00	419.89

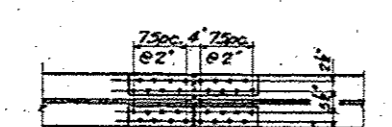
Note: End and support details stiffeners and bracing are identical to 450'0" unit unless noted.



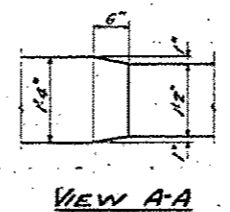
WEB PLATE SPLICE C & D



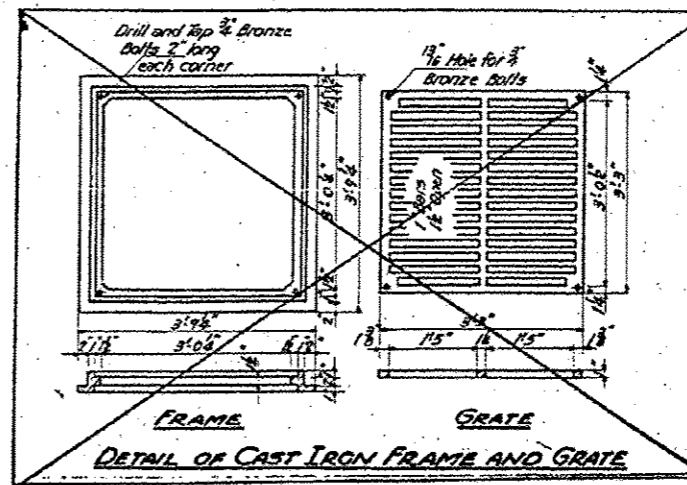
FLANGE PLATE SPLICE C



FLANGE PLATE SPLICE D



VIEW A-A



DETAIL OF CAST IRON FRAME AND GRATE

UNIT 1
DETAILS OF 384' GIRDER
F.A. RTE. 182-SEC. 12-D-E-F-G-D
RANDOLPH COUNTY
STATION 631+60

DESIGNED: ROK
CHECKED: [Signature]
DRAWN: [Signature]
CHECKED: [Signature]

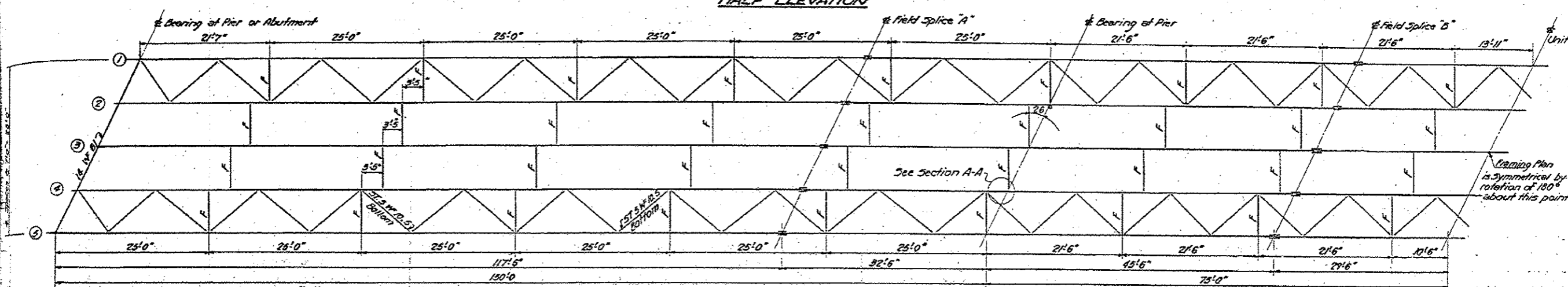
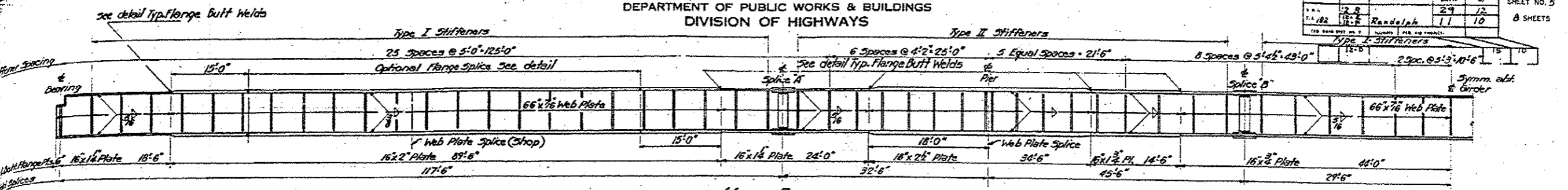
JAN 13 1961
DESIGNED: [Signature]
CHECKED: [Signature]
APPROVED: [Signature]

Revised 7/11/62 in Table "TOP OF GIRDER ELEVATIONS" changed: Elev. E. Drg. Pier 3, Unit 1, Subst. from 414.03 to 414.05; Elev. E. Drg. Pier 4, Unit 2, Girder 3 changed from 415.05 to 415.07, and changed Elev. E. Drg. Pier 5, Unit 3, Girder 3 from 417.07 to 417.08.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

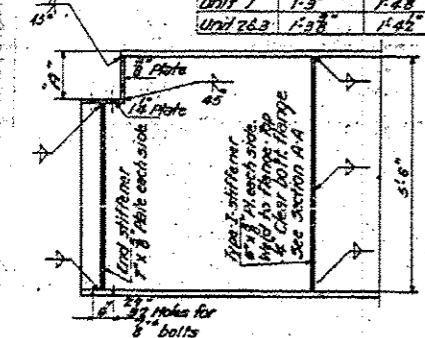
PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11-182	12-B	Randolph	29	12
120	12-B		11	10

SHEET NO. 5
8 SHEETS

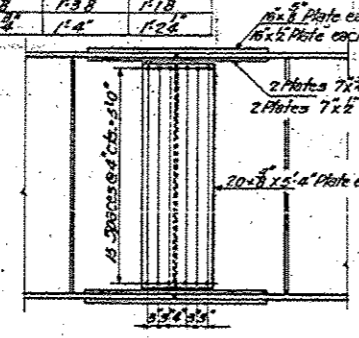


DIMENSION "A"

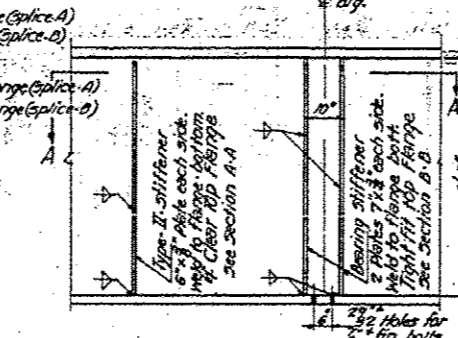
	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5
Unit 1	1'-3"	1'-4"	1'-4"	1'-3"	1'-1"
Unit 2 & 3	1'-3"	1'-4"	1'-4"	1'-4"	1'-2"



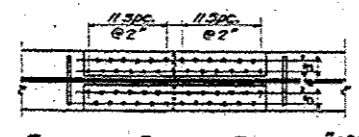
DETAIL-END GIRDER



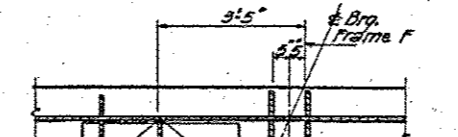
WEB PLATE-SPLICE A & B



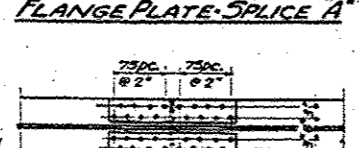
DETAIL AT SUPPORT



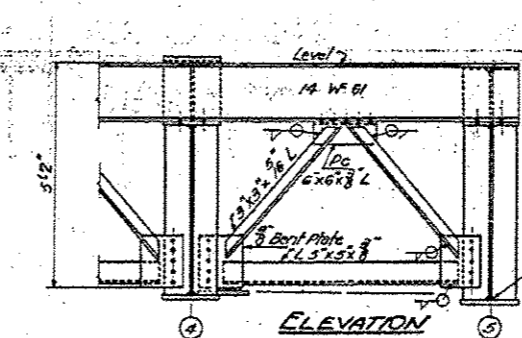
FLANGE PLATE-SPLICE A



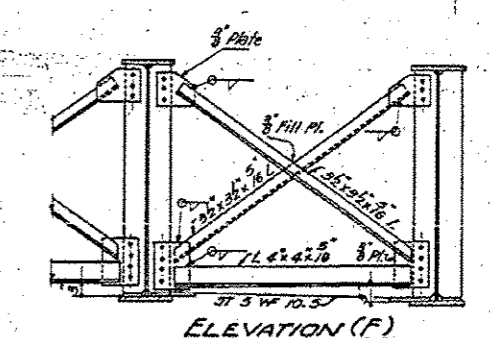
SECTION A-A



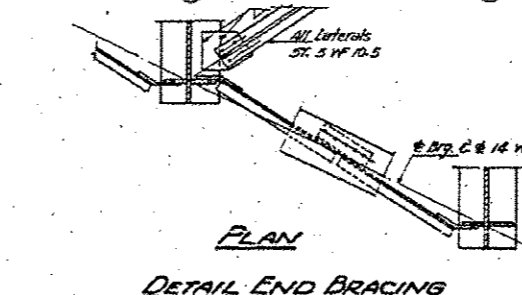
FLANGE PLATE-SPLICE B



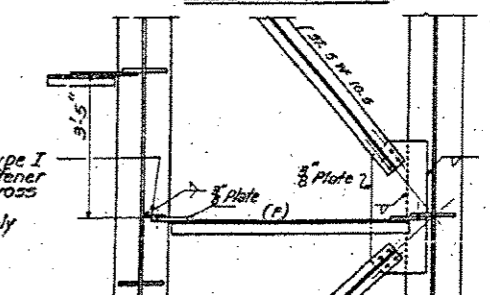
ELEVATION



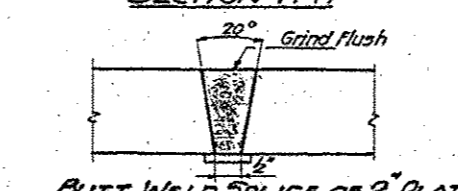
ELEVATION (F)



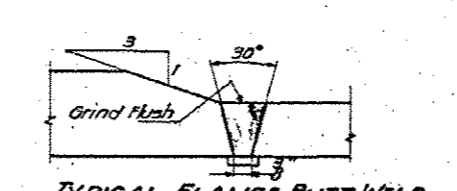
PLAN
DETAIL END BRACING



PLAN
DETAILS-INTERIOR BRACING



BUTT WELD SPLICE OF 2 PLATE



TYPICAL FLANGE BUTT WELD

Note: All fillet welds shall be 1/4" unless noted.
All field connections shall be 3/8" high strength steel bolts open holes 1/8" except as noted.

UNIT 2 & 3
DETAILS OF 450' GIRDER
F.A. RTE. 182-SEC. 12.D.E.P.P.
RANDOLPH COUNTY
STATION 631+60

DESIGNED	BAK	DATE	JAN 13 1961
CHECKED	Submitt	DRAWN	H. J. ...
APPROVED	H. J. ...	CHECKED	H. J. ...

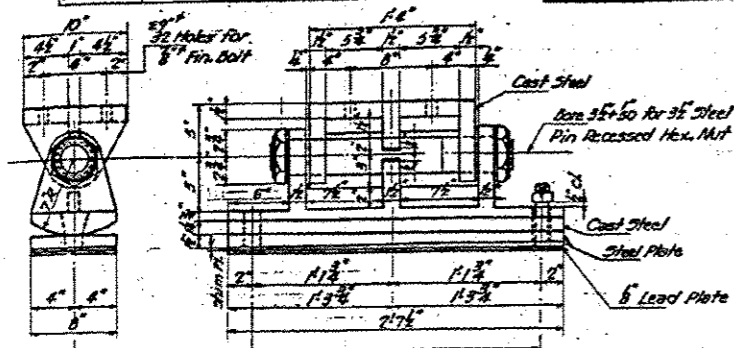
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
112	12-B	Randolph	90	87
DATE DESIGNED	DATE DRAWN	DATE CHECKED	DATE APPROVED	
11/11	11/11	11/11	11/11	

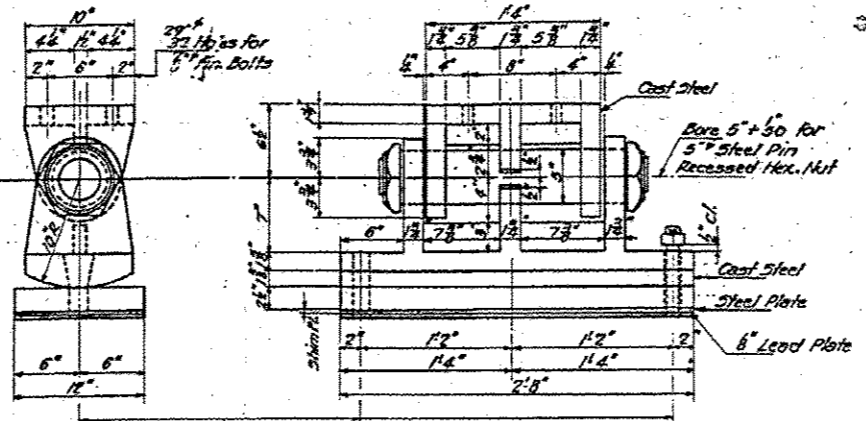
TABLE OF SHIM PLATES REQUIRED UNDER BEARINGS

Location	At Pier 3 West Sg.	At Pier 6. VII East Coast Drg.	At all other Brgs.
Girder 1	1"	8"	NOTE
Girder 2	2 1/2"	14"	16"
Girder 3	2 1/2"	14"	16"
Girder 4	1 1/2"	8"	NOTE
Girder 5	1"	8"	NOTE

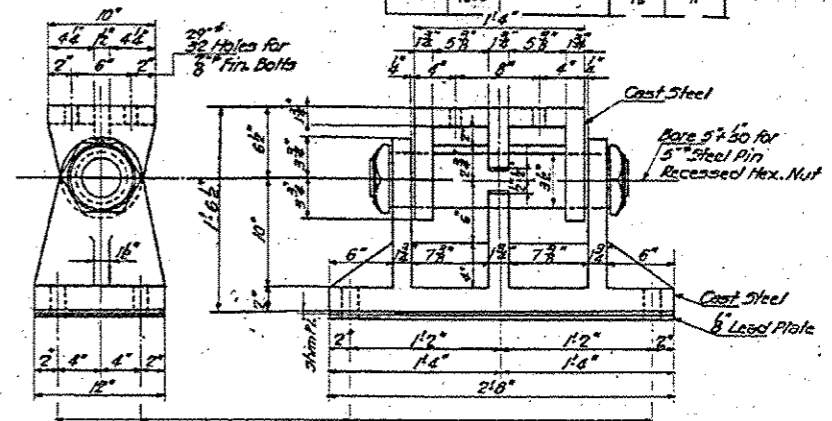
PLAN OF CORED HOLES



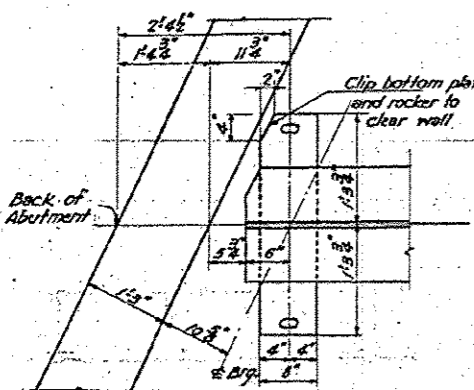
DETAIL OF EXPANSION BEARING AT ABUTMENTS & PIERS 3&6
2 1/2 x 1 1/2 Cored Holes in Rocker for 1 1/2 x 1 1/2 Anchor Bolts with Hex. Nuts
1 1/2" Holes Bottom Plate.



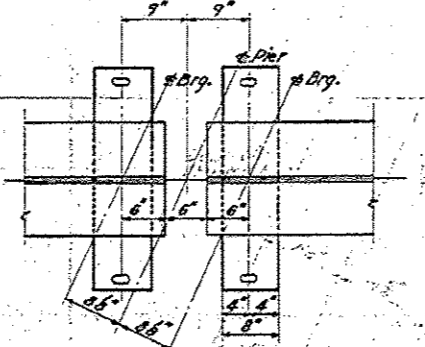
DETAIL OF EXPANSION BEARING AT PIERS 2, 5, 6, 7
2 1/2 x 1 1/2 Cored Holes in Rocker for 1 1/2 x 1 1/2 Anchor Bolts with Hex. Nuts
1 1/2" Holes Bottom Plate.



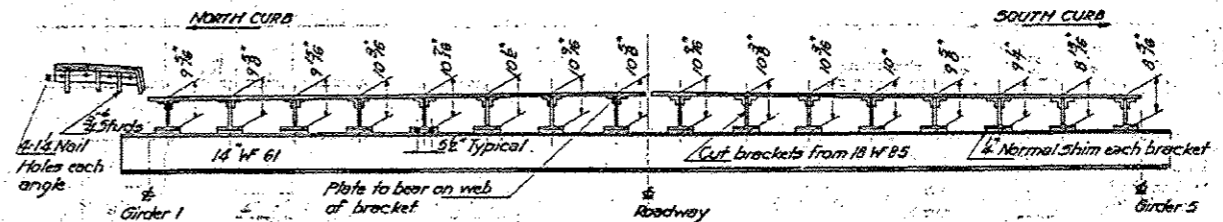
DETAIL OF FIXED BEARING AT PIERS 1, 4 & 8
1 1/2" Cored Holes for 1 1/2 x 1 1/2" Anchor Bolts with Hex. Nuts



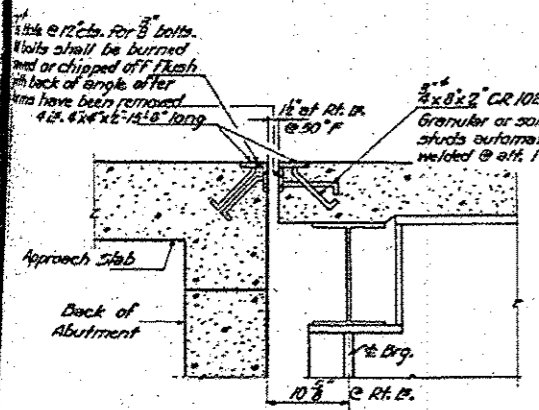
PLAN OF BRG. AT ABUTS.



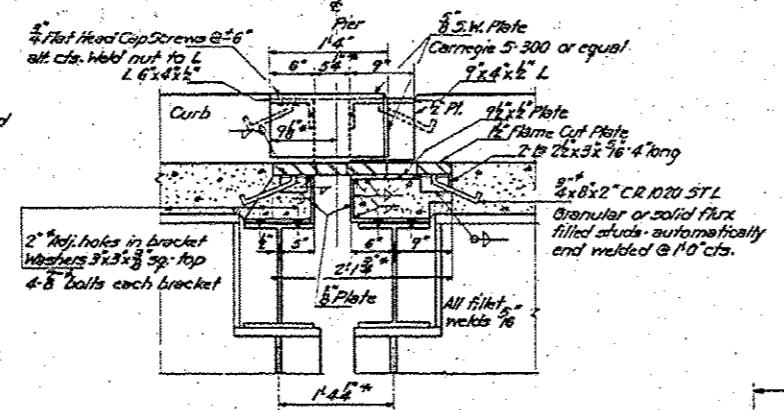
PLAN OF BRGS. & PIERS 3&6



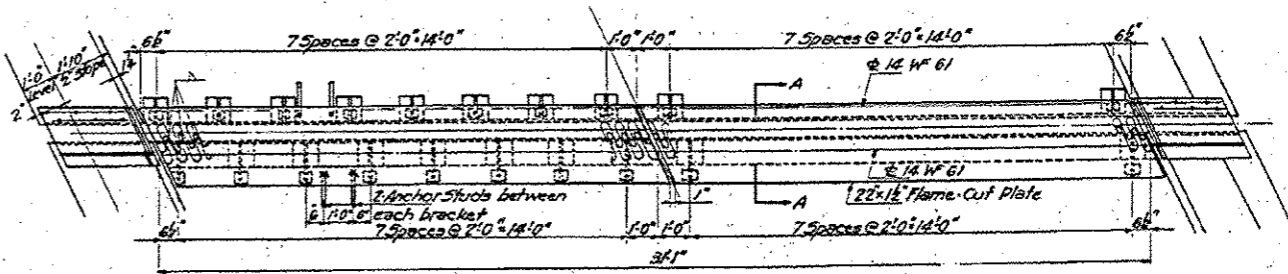
ELEVATION SHOWING BRACKET HEIGHTS



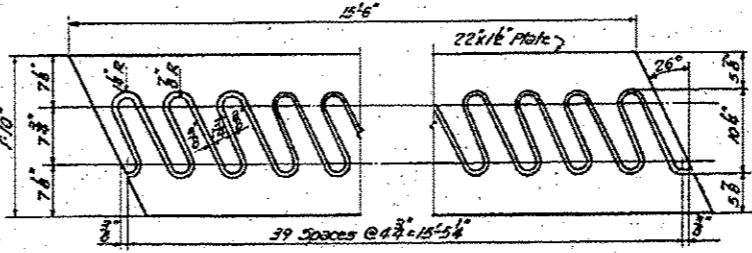
SECTION AT ABUTMENTS



SECTION A-A



PLAN OF EXPANSION GUARD AT PIER 3&6



DETAIL OF FLAME CUT PLATE
Plate shall be match-marked

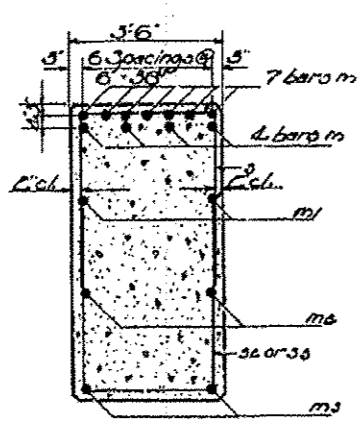
DETAILS
BEARING & EXPANSION GUARDS
E.A. RTE. 112-SEC. 12-D-F-P
RANDOLPH COUNTY
STATION 63+60

Note: Normal Shim shall be made of 2-5 Shims. In addition to normal shim fabricator shall furnish one 1/2 shim of each bracket.
Copper Bearing 2 1/2" (A.S.T.M. Designation A-7) with 0.2% copper added shall be used in the Finger Plate and 2 1/2 x 5 x 3/8" Clip Dr.
Top Sidewalk Plate shall be seam welded to side plate only. The assembly shall not be attached in the field until forms have been removed.
Dimensions which vary due to changes in temperature are given for a normal temperature of 50°F. and are marked by an asterisk (*). Decrease these dimensions by the following factors for temperature above normal and increase for temperature below normal:
1/2" Per 10° Variation of Pier 3
1/4" Per 10° Variation at Pier 6

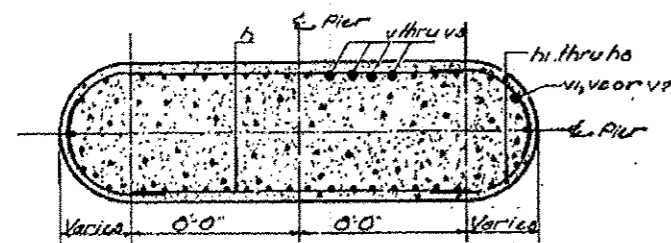
DESIGNED	EA Kowal	DATE	JAN 13 1964
CHECKED	W. Adams	DRAWN	M. Miller
APPROVED	R. B. [Signature]		

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

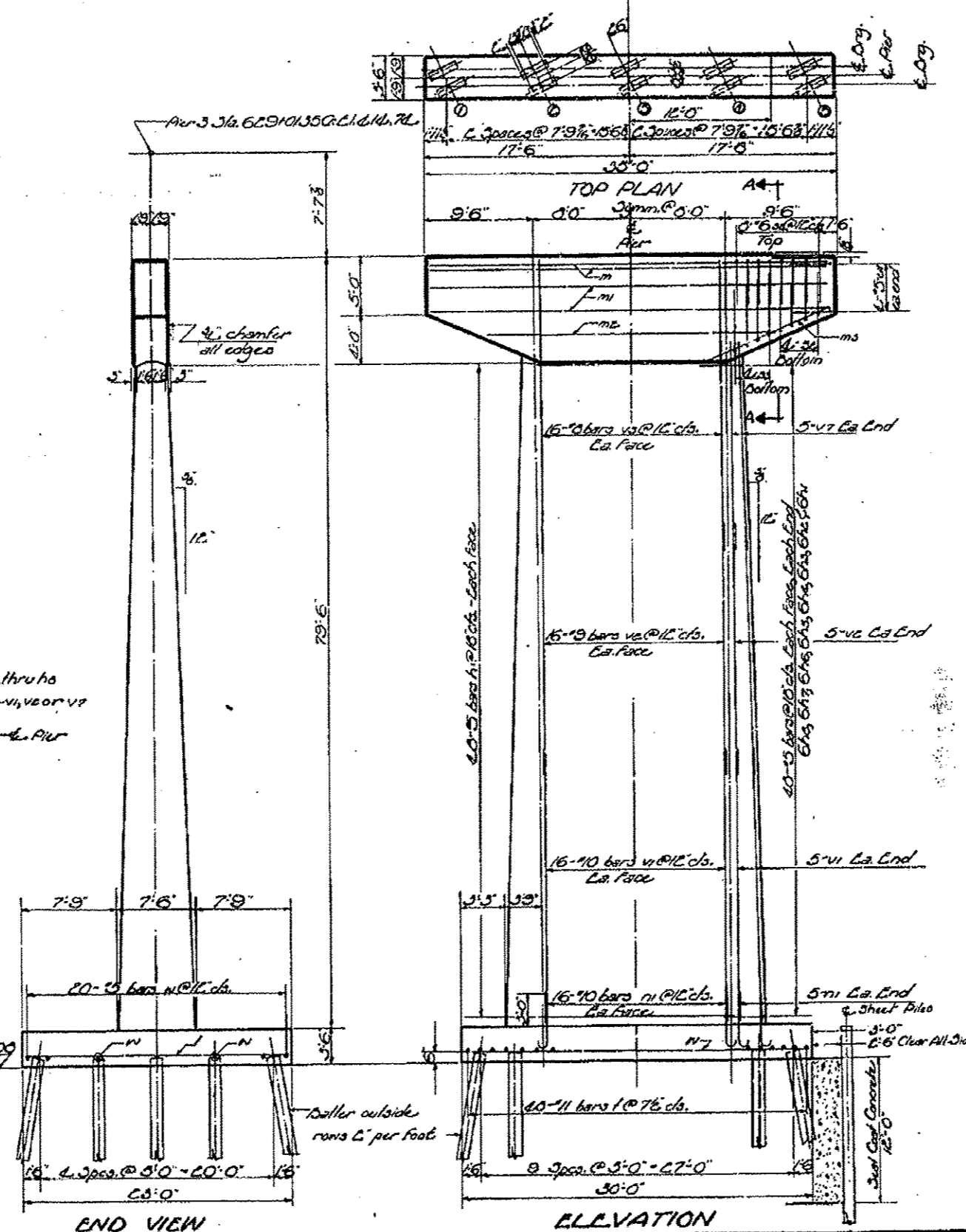
PROJECT NO.	SECTION	DATE	SHEET NO.	TOTAL SHEETS
12.5	Randolph	25	13	10



SECTION A-A



TYPICAL SECTION THRU STEM



END VIEW

ELEVATION

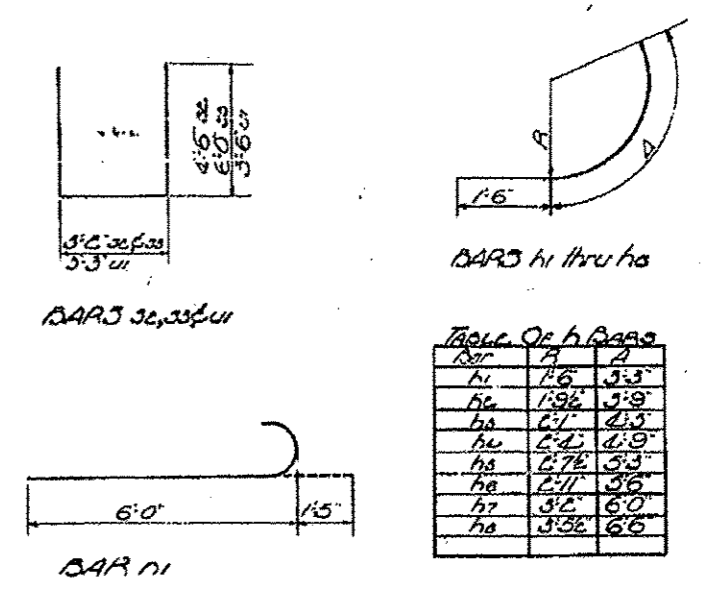


TABLE OF h BARS

Bar	No.	Size	Length
h1	16	3/8"	3'-3"
h2	16	3/8"	3'-9"
h3	16	3/8"	4'-3"
h4	16	3/8"	4'-9"
h5	16	3/8"	5'-3"
h6	16	3/8"	5'-9"
h7	16	3/8"	6'-0"
h8	16	3/8"	6'-6"

BILL OF MATERIAL
PIER 3

Bar	No.	Size	Length	Type
h	96	3/8"	16'-0"	
h1	16	3/8"	4'-9"	
h2	16	3/8"	5'-3"	
h3	16	3/8"	5'-9"	
h4	16	3/8"	6'-3"	
h5	16	3/8"	6'-9"	
h6	16	3/8"	7'-0"	
h7	16	3/8"	7'-6"	
h8	16	3/8"	8'-0"	
v1	40	1/2"	27'-9"	
v2	40	1/2"	27'-9"	
v3	40	1/2"	27'-9"	
v4	40	1/2"	27'-9"	
v5	40	1/2"	27'-9"	
v6	40	1/2"	27'-9"	
v7	40	1/2"	27'-9"	
v8	40	1/2"	27'-9"	
v9	40	1/2"	27'-9"	
v10	40	1/2"	27'-9"	
m	11	1/2"	31'-0"	
m1	4	3/8"	34'-0"	
m2	4	3/8"	34'-0"	
m3	4	3/8"	34'-0"	
m4	4	3/8"	34'-0"	
l	40	1/2"	27'-9"	
l1	40	1/2"	27'-9"	
l2	40	1/2"	27'-9"	
l3	40	1/2"	27'-9"	
l4	40	1/2"	27'-9"	
l5	40	1/2"	27'-9"	
l6	40	1/2"	27'-9"	
l7	40	1/2"	27'-9"	
l8	40	1/2"	27'-9"	
l9	40	1/2"	27'-9"	
l10	40	1/2"	27'-9"	
l11	40	1/2"	27'-9"	
l12	40	1/2"	27'-9"	
l13	40	1/2"	27'-9"	
l14	40	1/2"	27'-9"	
l15	40	1/2"	27'-9"	
l16	40	1/2"	27'-9"	
l17	40	1/2"	27'-9"	
l18	40	1/2"	27'-9"	
l19	40	1/2"	27'-9"	
l20	40	1/2"	27'-9"	

PILE DATA
Type Steel (A36/A572)
Capacity 40 Tons
Total Length 32.1 ft.
No. Reqd. 30

PIER 3
F.A. RT. 102 SEC. 12.5
RANDOLPH COUNTY
Sta. 631+60

DESIGNED: R. D. Stewart
CHECKED: [Signature]
DRAWN: W. L. Jacobs
CHECKED: [Signature]

EXAMINED: [Signature]
APPROVED: [Signature]

Aug. 26, 1957

REVISED 3-11-60 Collar and Seal Coat added to Elevation
RAK... Seal Coat Concrete added to Bill of Material

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
112	12B	Randolph	27	15

SHEET NO. 9

10 SHEETS

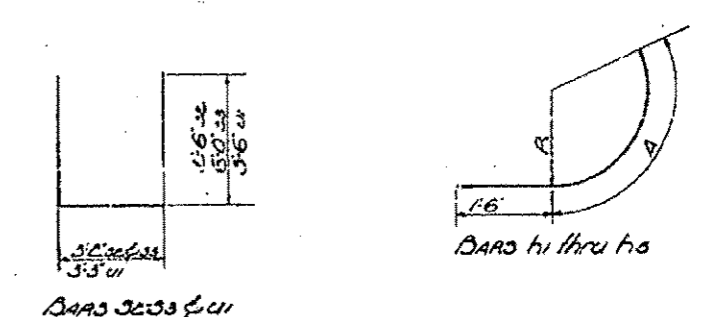
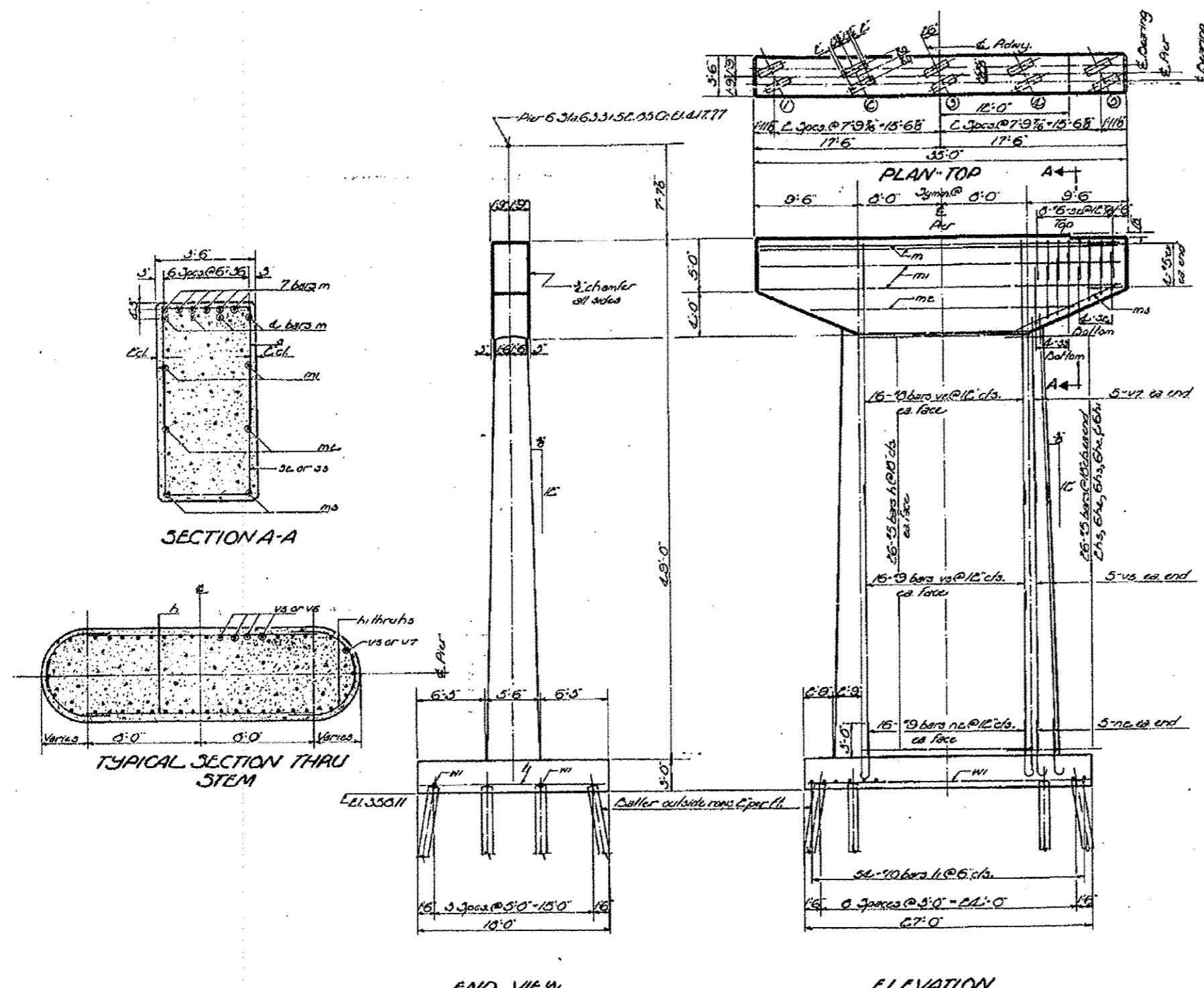


TABLE OF h BARS

DEF	A	A
h1	1'-6"	3'-3"
h2	1'-9"	3'-9"
h3	2'-1"	4'-3"
h4	2'-4"	4'-9"
h5	2'-7"	5'-3"

BILL OF MATERIALS
PIER 6

DEF	No	Size	Length	Shape
h	15	16	18'-0"	—
h1	5	16	4'-9"	—
h2	3	16	3'-3"	—
h3	5	16	5'-9"	—
h4	5	16	6'-3"	—
h5	3	16	6'-9"	—
va	19	10	25'-6"	—
va	19	10	25'-6"	—
vt	10	10	80'-0"	—
nc	19	10	6'-9"	—
se	15	10	16'-0"	—
sa	15	10	16'-0"	—
ur	15	10	10'-3"	—
m	10	10	34'-0"	—
mu	10	10	34'-0"	—
me	15	10	23'-3"	—
ms	15	10	11'-0"	—
h	10	10	17'-9"	—
ni	15	10	25'-9"	—
Class A Concrete Cus 5000 C 1000				
Reinforcement Bars Cus 5000 C 1000				
Steel Piles Lin. Ft. 2196				

PILE DATA

Type: Steel (12.0033)
Capacity: 40 Ton
Total Length: 61'-0"
No. Piles: 36

DESIGNED: R. K. Wood
CHECKED: J. Ashwell
DRAWN: W. L. Jacobs
CHECKED: [Signature]
EXAMINED: [Signature]
PASSED: [Signature]
APPROVED: [Signature]

PIER 6
P.A. RT. 100 - SEC. 12 B
RANDOLPH CO.
STATION 631+60